



中華民國 精彩一百

鐵道旅行 幸福100

Republic of China Centennial
Celebrating 100 superlative years of rail travel

100年臺灣鐵路年鑑
2011 Taiwan Railways Annual Report

目錄 Contents



局長序言

04 局長序言

01

臺鐵願景、組織與營運概況

10 臺鐵願景、營運目標與營運策略
12 組織與人力
13 鐵路營運設施概況

02

歡慶建國百年 臺鐵系列活動

18 「火車環島接力 百年車站巡禮」
18 「鐵道旅行'幸福100」—成功到站
22 徵選「鐵道人文盛會」作品
22 臺灣鐵路124週年暨100年鐵路節慶祝大會
22 臺北車站1樓大廳廉政宣導
24 「火車載阮向前行 臺鐵百年文物特展」
24 「臺鐵紀念商品'限定販售」商品特賣會
24 「百人豎琴馬拉松音樂會」

03

創新業務與成果實錄

28 創新業務
 業務創新
 技術創新
32 成果實錄
 交通部100年創新提案制度獲獎
 第11屆公共工程金質獎獲獎
 全國100年度節水評比競賽（國營事業組）獲獎
 本局100年創新及研發獎獲獎
 創新盒餐（健康養生便當）及創新商品（臺鐵十大伴手禮）
 環保綠建築車站及設施

04

提升服務、安全與準確

40 提升服務
42 提升安全
42 提升準確

05

100年度經營績效

46 營運暨損益分析
46 客貨運業務
48 附屬事業經營及資產活化利用效益

06

事業運作狀況

56 運輸業務
58 工務工程
58 機務工程
60 電務工程
60 餐旅服務
62 貨運服務與出租業務
62 行政管理及人員訓練
70 資產管理及資產活化

07

重大工程及投資建設

80 環島鐵路整體系統安全提升計畫
82 臺北機廠遷建設計畫
82 臺鐵都會區捷運化桃園段高架化設計畫
82 臺鐵都會區捷運化暨區域鐵路後續設計畫
 （基隆—苗栗段）

08

年度大事紀要



Preface

05 Preface

I TRA's Vision, Organizational Structure and Operating Overview

11 TRA's Vision, Operating Objectives and Strategies
12 Organizational Structure and Personnel
13 Overview of Operational Facilities

II TRA Celebrations for ROC Centennial

18 "Around-the-island Train Relay: Touring a Century of Railway Stations"
18 "Discover Taiwan by Railway" Activity and Completion Ceremony
23 "TRA Art and Culture Summit" and Featured Artworks
23 TRA's 124th Anniversary and ROC 100th Anniversary Joint Celebration and Ceremony
23 Anti-corruption Promotional Activity at 1st Floor Lobby of Taipei Main Station
25 "A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics"
25 Limited Edition TRA Commemorative Souvenirs" Sales Event
25 "100 Harpists Marathon Concert"

III Innovations Business and Achievements

29 Innovations Business
 Operating Business Innovations
 Technological Innovations
33 Achievements
 MOTC Centennial Award for Innovative Transportation Projects
 11th Public Construction Golden Quality Award
 National Centennial Award for Water Conservation (State-Owned Enterprises Category)
 TRA Centennial Innovation and R&D Award
 Innovative Meals (Healthy Boxed Lunches) and New Products (Ten Major Souvenirs from TRA)
 Eco-friendly rail stations and facilities

IV Raising the Bar on Rail Service, Safety and Punctuality

41 Improving Service
43 Increasing Safety
43 Increasing Punctuality

V 2011 Operating Report

46 Profit and Loss Analysis
47 Passenger and Freight Business
49 Results from Subsidiary Businesses and Active Utilization of Assets

VI Business Division Operating Situation

57 Transportation Business
59 Construction Engineering
59 Rolling Stock Engineering
61 Electrical Engineering
61 Catering Services
63 Freight Services and Leasing Business
63 Administrative Management and Personnel Training
71 Property Management and Active Utilization

VII Major Engineering Projects and Investment

81 Round-Island Railway System Safety Upgrading Project
83 Taipei Railway Workshop Relocation Project
83 TRA Rapid Transit Systematization in Metropolitan on the Taoyuan Section of Elevated Track Project
83 TRA Rapid Transit Systematization in Metropolitan Area and Regional Railway Follow-up Construction Project (Keelung – Miaoli Section)

VIII Major Events of the year



「中華民國 精彩一百」，祝福這劃時代意義的建國百年，在舉國同慶處處歡欣中，本局特舉辦全年系列性慶祝活動，尤以「12代同堂列車環島接力 百年車站巡禮」、「鐵道旅行 幸福100」及「火車載阮向前行—臺鐵百年文物特展」等三項活動，最受到各界熱烈的回響與佳評，因此深感臺鐵在提供全國便捷交通服務以外，更應以融入全民生活與永續鐵道文化為社會責任，持續策勵向前開展新局。

「100」有著「滿意」的象徵，亦具有「里程碑」的意涵，雖然臺鐵面臨國內多元運具的競爭，卻始終堅持「安全、準確、服務、創新」的四大核心價值理念，積極提升各方面品質與經營績效；民國100年在全體同仁的戮力合作下，每日乘車人數約56萬人次，較99年成長8.47%，締造臺鐵成立124年以來歷史新高，每日收入約4,300萬元，亦較99年成長6.50%，已回到高鐵通車前之營收水準。又新竹站獲得100年度「交通部服務品質獎」、花蓮電務段主辦之「轄區列車方向指示器新設工程」，獲得100年第十一屆公共工程「金質獎」等佳績，寫下100年度新紀錄。

「百尺竿頭 更進一步」向標竿創新猷，是臺鐵永續精神所在。民國100年期間，臺鐵無論在軟、硬體之建設與服務上，都廣續積極投入，並力求多方改善，以展現年年蛻進的成果：

在營運方面，強化「顧客關係管理」效益，建置會員制服務系統；推動「感動服務」，開放超商取票；持續拓展多卡通電子票證服務；推動票務自動化；重新編修各級列車碼；整合運具、場站、票證及資訊等無縫運輸；開行兩鐵環保列車；提供24小時客服中心諮詢服務；推動優質公廁計畫；建置免費無線上網（WiFi）服務等，持續地提升臺鐵服務水準，創新與便捷，與時俱進。



In 2011, the "Republic of China Centennial" marked the 100th anniversary of the founding of the ROC. This landmark event was toasted with celebrations across the nation. TRA was honored to host year-round festivities to commemorate this occasion. Our most popular activities included: "Around-the-island Train Relay: Touring a Century of Railway Stations", "Discover Taiwan by Railway", and "A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics". People in Taiwan responded with great praise and enthusiasm at these celebrations of our enduring railway culture and traditions. TRA is honored to provide Taiwan with convenient and rapid transportation services. We hope to always preserve the unique culture and traditions of rail travel in the hearts and minds of people in Taiwan. Moreover, we'll keep moving forward to a newer and better TRA.

The number "100" means "100% satisfaction. TRA faces competition from an array of transportation modes in Taiwan. Nonetheless, it has continued to maintain the highest standards of service and transportation quality through strict adherence to our four core values of "Safety, Punctuality, Service and Innovation". 124 years have passed since the founding of TRA. In 2011, through the diligent efforts of TRA colleagues, TRA achieved a record-high average passenger volume of 560,000 per day, an 8.47% increase from 2010. Daily revenue was NT\$43 million on average, a 6.50% increase from 2010 and a number comparable to average revenue before the opening of the Taiwan High Speed Rail. In addition, Hsinchu Station received the 2011 "MOTC Service Quality Award". The electrical department for the Hualien rail section was awarded the "11th Public Construction Golden Quality Award" for its project to replace directional indicators for its local line.

"Never stop striving" encompasses the spirit of TRA. We adapt constantly to improve and are proud of the following 2011 achievements:

In operation, TRA has shown its continued commitment to the highest quality of service and evolving with the times in offering innovative and convenient transportation services. In 2011, we strengthened "customer relationship management" with a membership-based system; began convenience store ticket sales with our "touch-your-heart service"; continued to develop multi-card access functionality; improved automated ticket sales; renumbered trains; integrated trains, stations, ticketing and information services; began providing "eco-friendly" train services, allowing bicycles on board certain trains; established 24-hour customer service hotlines; initiated high-quality public restroom facility construction; and began offering free WiFi services. To promote the service level of TRA go on, above all, innovation and convenience will be keep up with times.





在硬體建設方面，落實推動「通用設計」；浮州站及山佳跨站式站房啟用；六家支線通車、集集線與內灣支線復駛通車，提供了更完善的無縫交通網絡與高鐵及客運轉乘服務。另完成33個車站無障礙設施改善，以增進友善環境；臺北車站1樓及地下1樓商業空間整建暨「多功能展演廳」及「新微風商場」的啟用，以時尚風格煥然亮麗展現，成為多元化功能的交通轉運重心與未來沿線各站發展的新典範，以上都是在積極建構臺鐵成為行旅及民眾衷愛的交通與生活，一次購足的環境。

在財務改善與附屬事業發展方面，以土地提供利用、設定地上權、委託經營、都市更新、房地出租及都更合作等方式，陸續推動資產管理、開發與活化利用績效。另為改善營運與財務狀況，訂定短中長期計畫，爭取「未來可開發利用資產」作為償債用途，期以達成「資產活化」及「營運改善」之計畫目標，達到開源節流暨減虧趨盈的財務成效。

「飛躍100邁向101」，臺鐵仍持續戮力於建構「安全」、「可靠」、「穩定」、「效率」與「綠能」的運輸環境，並致力推動「設備通用化及友善化」、「創新與感動服務」、「車輛汰舊換新」、「發展關聯事業」及「資產活化」等策略目標；另協助林務局積極辦理阿里山森林鐵路修復暨營運前置作業，俾國際知名的觀光景點與世界文化遺產潛力點，不僅具備安全的鐵路運輸服務，更將再度展現其多樣風情與榮景。展望未來，臺鐵更重視員工素質提升，以增強各方面競爭力，追求日新月異年年銳進，成為旅客知己的公共運輸及行旅生活兼備的雙核心事業，相信在政府組織改造及鐵路法修訂後，臺鐵將可早日實現美好願景。

局長

范植谷

謹識



In train and rail facilities, we initiated the universal design to provide a more complete network of transportation services with seamless transfers from the THSR and bus services. We built elevated cross-railway terminals at Fuzhou and Shanjia Stations, opened the Liujia line and refurbished the Chichi and Neiwan lines. We also renovated 33 stations by equipping them with handicapped access for a more accessible and user-friendly transportation system. Finally, we remodeled the 1st floor and B1 levels of Taipei Main Station into a "Multi-functional Performance Hall" and the "New Breeze Shopping Center". This stylish and modern space has become a multi-functional transportation hub and will serve as a model for us to develop other TRA stations. All for the people and the traveler to be the favorite transportation and life, and just be an environment that all have be prepared.

In financial management and subsidiary business operations, TRA has taken systematic steps to improve its performance in management, development and active utilization of assets. We have made strides in managing land use, setting property and building rights, delegating operational responsibilities, initiating urban renewal projects, managing premises rentals, and cooperating with urban renewal programs. To further raise our operational standards and financial viability, we have set short, medium and long term strategies for using "assets with potential for future development" to offset our debt. We plan to set and meet periodic goals for asset utilization and operational improvement to cut costs and increase revenue.

"Leaping past 2011 toward 2012", TRA will work hard to create a transportation system based on the tenets of safety, reliability, stability, efficiency, and environmental sustainability. We will continue to devote ourselves to the strategic goals of "universal design facilities", "friendly and accessible facilities", "innovative service that touches your heart", "replacing old trains with new ones", "developing related business opportunities", and "active utilization of assets". We will also assist the Forestry Bureau in refurbishing and repairing the Alishan Forest Railway to bring a safe railway transportation system back to the national park and allow passengers to see spectacular rail-side views of this internationally renowned tourist destination again. Makes that to be a scenic spots and finds the potential to become a world cultural heritage, to possess the safety service of railway transportation, moreover, to emerge its multiple features and glories. Looking to the future, TRA will place more emphasis on hiring and training high-quality staff and strengthen our competitiveness in all aspects. With effective government reform and proper amendment of the Railway Law, TRA will accomplish its goals sooner and realize its vision of a railroad operation that endures the test of time.

Director General

Fan. Chih-ku

01

臺鐵願景、組織與營運概況

TRA's Vision, Organizational Structure and Operating Overview



臺鐵願景、營運目標與營運策略

TRA's Vision, Operational Objectives and Strategies

組織與人力

Organizational Structure and Personnel

鐵路營運設施概況

Facilities and Equipment Overview

平溪線 Pingxi line





臺鐵願景、營運目標與營運策略

(一) 願景

以成為民眾知己之優質大眾運輸系統，經營運輸本業及附屬事業之雙核心事業。

(二) 營運目標

- 1、建構安全、可靠、穩定、效率與綠能的運輸環境。
- 2、營運設備通用化及友善化。
- 3、創新運輸服務。
- 4、提升車輛品質。
- 5、資產活化利用，發展附屬事業。



(三) 營運策略

關於經營管理者：

- (1) 落實通用設計，逐步改善月臺高度與車廂齊平及車站無障礙空間，建構現代化友善運輸環境。
- (2) 推動無縫運輸，與捷運、客運及公車進行電子票證整合，與高鐵及捷運進行場站班次及資訊整合，建構優質運輸服務。
- (3) 增加運能，強化東部幹線中長程及跨線運輸；西部幹線區域及通勤運輸捷運化。
- (4) 加強行銷策略，推動旅客會員制度；結合鐵道文化，進行異業結盟，提供客製化服務，開創新客群。
- (5) 有效利用既有資產，發展行旅生活服務事業，擴大附屬事業商機。
- (6) 推動資產活化利用，藉由都市更新、促參建設及設定地上權等多元開發方式，創造以交通建設與土地開發結合之TOD（Transit-Oriented Development，大眾運輸導向發展）效益。
- (7) 加強企業內部溝通協調、強化勞資會議功能、建立和諧勞資關係。
- (8) 加強員工風險管理及危機處理等在職訓練、督導與考核，強化防災防恐機制，提升緊急應變能力，以維護行車及旅客安全。

關於供需配合者：

- (1) 賡續辦理臺鐵都會區捷運化後續建設計畫，增設車站及增開區間列車，以擴大臺鐵通勤服務範圍，縮短列車班距。
- (2) 加速購置及汰換營運車輛，簡化車種，提升服務品質。
- (3) 賡續辦理臺北機廠遷建計畫暨高雄機廠遷建潮州及原有廠址開發計畫，解決高鐵過軌問題及配合高雄市區鐵路地下化工程，確保行車安全並達成車輛維修技術與品質之提升。
- (4) 逐步推動自動化電腦排點作業系統，提升排班及調度功能，以促使運能之供給規劃可密切配合旅客之運輸需求。



TRA's Vision, Operating Objectives and Strategies

1. Vision

To carry out the core activities of the transportation business and related subsidiary business with a top quality mass transit system oriented towards customer satisfaction.

2. Operating Objectives

- A. The foundation of safe, reliable, stable, efficient and eco-friendly transportation environment
- B. Friendly interchangeability of operational equipment
- C. Innovative transportation service
- D. Improvement of trains
- E. Active utilization of assets and development of subsidiary businesses

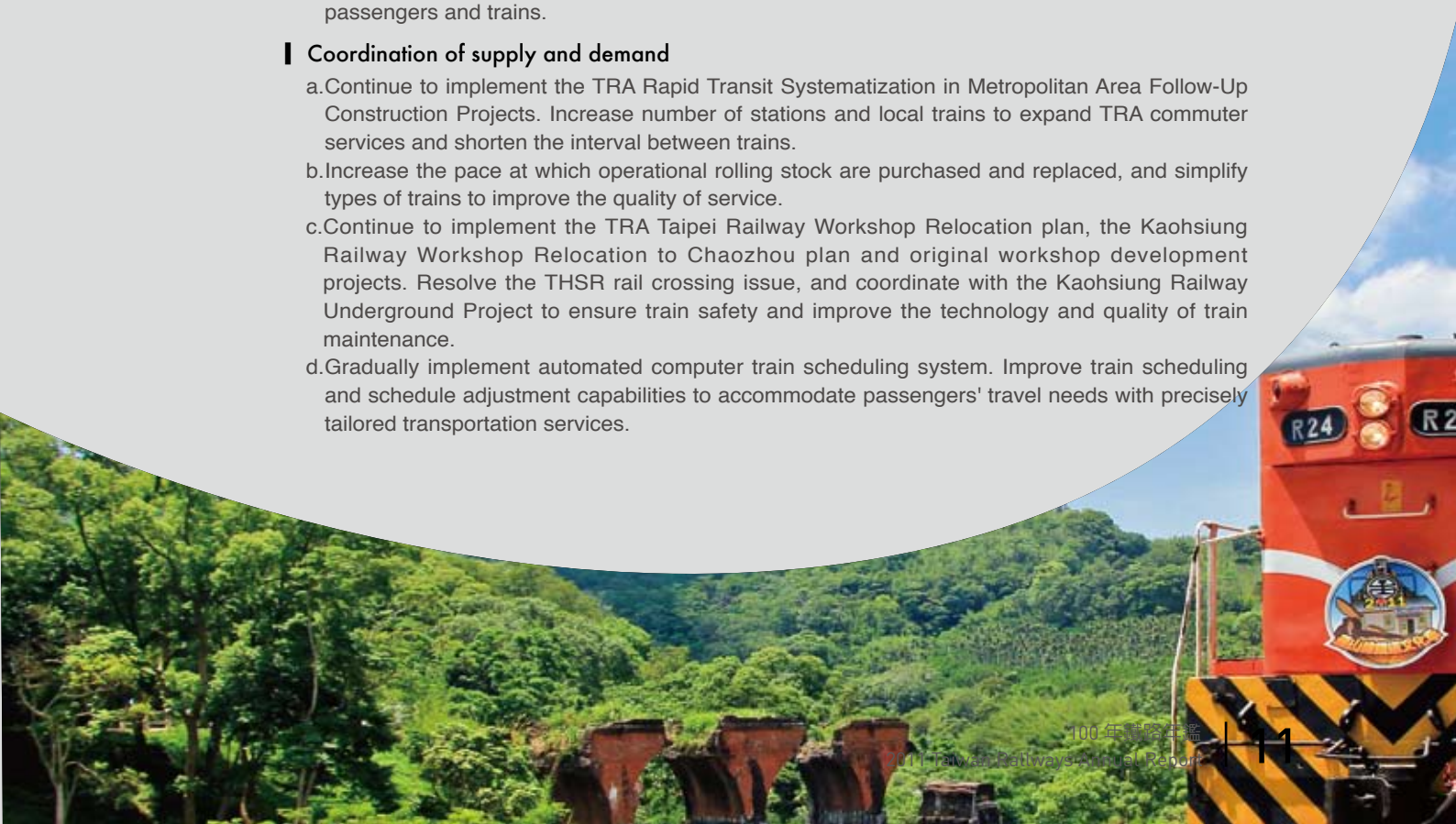
3. Operating Strategies

I Operations management

- a. Create a modern, friendly and accessible transportation environment by implementing the universal design adjusting platform heights and train ramps for handicapped access and creating handicapped areas in stations.
- b. Promote seamless transportation with a top quality mass transit system, and carry out E-tickets integration with MRT and buses, and integrate timetable and information with THSR and MRT station.
- c. Increase transportation capacity by strengthening long distance and cross-line transportation capacity in Eastern Line; and Western Line commute (rapid transmit systematize).
- d. Improve marketing strategy, and promote a traveler membership system; integrate with rail culture, and work in concert with other industries to offer customized services to create new tourist groups.
- e. Effectively use existing assets to develop travel service business, and expand subsidiary business opportunities.
- f. Promote active utilization of assets through the diverse means of urban renewal projects, construction projects and utilization of land rights. Create the benefit of "Transit-Oriented Development" (TOD) of land.
- g. Improve internal communications and coordination, strengthen the function of labor-management meetings and establish harmonious relations between labor and management.
- h. Improve employees' on the job training in risk management and crisis response. Strengthen disaster, terrorism and emergency response mechanisms in order to protect the safety of passengers and trains.

II Coordination of supply and demand

- a. Continue to implement the TRA Rapid Transit Systematization in Metropolitan Area Follow-Up Construction Projects. Increase number of stations and local trains to expand TRA commuter services and shorten the interval between trains.
- b. Increase the pace at which operational rolling stock are purchased and replaced, and simplify types of trains to improve the quality of service.
- c. Continue to implement the TRA Taipei Railway Workshop Relocation plan, the Kaohsiung Railway Workshop Relocation to Chaozhou plan and original workshop development projects. Resolve the THSR rail crossing issue, and coordinate with the Kaohsiung Railway Underground Project to ensure train safety and improve the technology and quality of train maintenance.
- d. Gradually implement automated computer train scheduling system. Improve train scheduling and schedule adjustment capabilities to accommodate passengers' travel needs with precisely tailored transportation services.





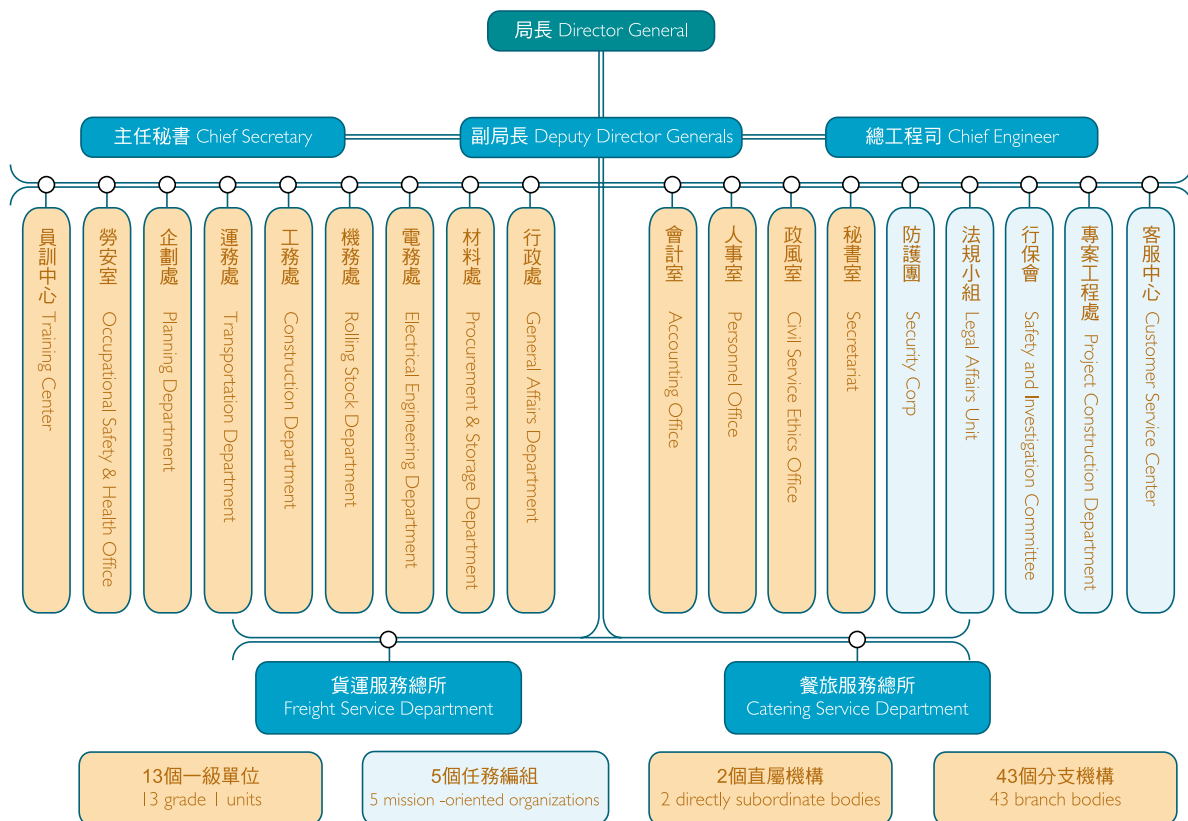
組織與人力

(一) 臺灣鐵路管理局編制

局長下置副局長3人、主任秘書及總工程司各1人，襄助局長處理局務，並設有運務處、工務處、機務處、電務處、企劃處、材料處、行政處、秘書室、人事室、政風室、勞安室、會計室、員工訓練中心等13個編制單位；法規小組、防護團、行保會、專案工程處、客服中心等5個任務編組單位與貨運服務總所、餐旅服務總所2個直屬機構及43個分支機構。

(二) 現有人員數

本局100年預算員額為14,170人，100年12月底現有員額為13,794人。



Organizational Structure and Personnel

1. TRA Organizational Structure

Below the Director General are three Deputy Director Generals, a Chief Secretary, and a Chief Engineer to assist the Director General in handling the affairs of TRA. In addition, there are thirteen organizational units: the Transportation Department, Construction Department, Rolling Stock Department, Electrical Engineering Department, Planning Department, Procurement & Storage Department and General Affairs Department; the Secretariat, Personnel Office, Civil Service Ethics Office, Occupational Safety & Health Office, and Accounting Office, and Staff Training Center-as well as five mission-oriented entities- the Legal Affairs Unit, Security Corp, Safety and Investigation Committee, the Project Construction Department and the Customer Service Center. Two direct subsidiaries-the Freight Service Head Office and Catering Service Head Office-and 43 branch organizations.

2. Current Employees Number

The TRA budget in 2011 allowed for 14,170 employees, while the number of current employees at the end of December 2011 was 13,794.

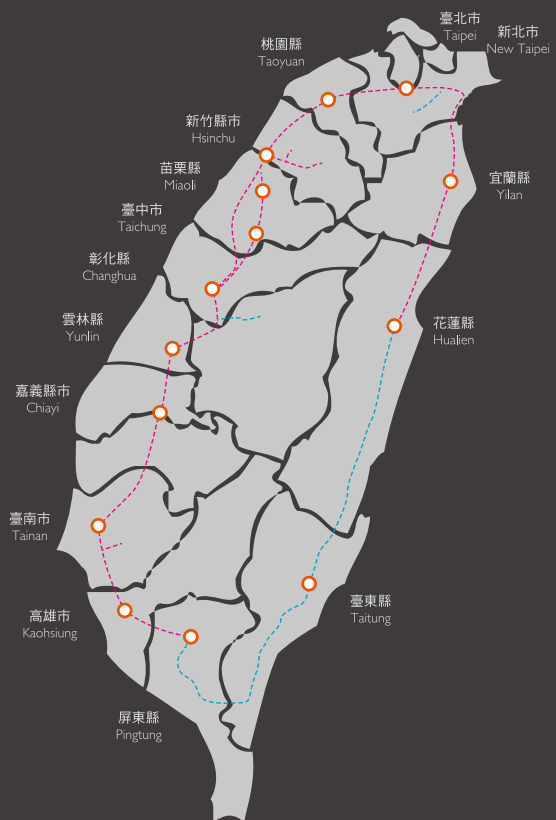
鐵路營運設施概況

Overview of Operational Facilities

(一) 營業里程 Operating Distance

單位Unit：公里km
民國100年底 End of 2011

| | |
|--|--------|
| 營業里程合計 Operating | 1086.5 |
| 雙線電氣化 Double Track Electrified | 660.4 |
| 單線電氣化 Single Track Electrified | 40.5 |
| 雙線非電氣化 Double Track Non-Electrified | 23.5 |
| 單線非電氣化 Single Track Non-Electrified | 362.1 |



營業里程：1086.5公里

- 雙線：683.9公里
- 單線：402.6公里
- 電化區間：700.9公里
- 非電化區間：385.6公里
- 車站：224站
- 特等站3站，一等站27站，二等以下194站。
- 平交道：554處
- 第一種10處、第二種2處、第三種472處、半封閉32處、手動控制25處、專用13處。

Operating Distance 1086.5km

- Double track: 683.9 kilometers
- Single track: 402.6 kilometers
- Electric track: 700.9 kilometers
- Non-electric track: 385.6 kilometers
- Stations: 224
- (3 special grade stations, 27 grade one stations and 194 grade two and below)

Level Crossings: 554
(10 type one crossings, 2 type two crossings, 472 type three crossings, 32 semi-closed crossings, 25 manually-controlled crossings and 13 special-use crossings)



(二) 車輛數與運用效率

■ 至100年底計有車輛數：

機車285輛

- (1) 電力機車91輛，平均車齡31.73年。
- (2) 推拉式電力機車64輛，平均車齡14年。
- (3) 柴電機車130輛（不含臺泥自備6輛），平均車齡36.33年。

客車2,029輛

- (1) 自強號電聯車498輛，平均車齡14.22年，其中已屆滿院頒最低使用年限30年之15輛 EMU100，擬轉為文化資產動態展示車輛。
- (2) 通勤電聯車606輛，平均車齡11.88年。
- (3) 自強號柴聯車168輛，平均車齡22.07年。
- (4) 柴油客車55輛，平均車齡23.11年。
- (5) 空調客車563輛，平均車齡36.04年。
- (6) 普通客車74輛，平均車齡41.28年。
- (7) 其他車65輛，平均車齡36.88年。

貨車1,949輛，平均車齡35.08年。其中敞車250輛、石碴車21輛、石斗車94輛及平車40輛計405輛屬用途改造車。

■ 運用效率

在動力車可用率方面，傾斜式電聯車（太魯閣號）95.43%，其他車型電聯車可用率為73.55%，推拉式電力機車81.80%，電力機車79.01%，另外使用柴油能耗之柴電機車及柴油客車動力車，其可用率分為85.19%及78.66%，合計總動力車可用率為79.32%。

2.Total Number of Rolling Stock and Operating Efficiency

■ In the end of 2011, the number of TRA's rolling stock consisted of

285 locomotives

- a.91 electric locomotives with average time in service of 31.73 years
- b.64 push-pull electric trains with average time in service of 14 years
- c.130 diesel-hydraulic locomotives with average time in service of 36.33 years (does not include the 6 trains provided by Taiwan Cement)

2,029 Passenger trains

- a.498 Tzuchiang Express EMUs with average time in service of 14.22 years (including 15 EMU 100s with service times of longer than 30 years, which were converted into cultural relic exhibitions)
- b.606 commuter EMUs with average time in service of 11.88 years
- c.168 Tzuchiang Express DMUs with average time in service of 22.07 years
- d.55 diesel passenger cars with average time in service of 23.11 years
- e.563 air-conditioned passenger cars with average time in service of 36.04 years
- f.74 ordinary passenger cars with average time in service of 41.28 years
- g.65 other cars with average time in service of 36.88 years

1,949 freight wagons with average time in service of 35.08 years. These include the following 405 freight wagons converted for specific purposes: 250 open freight cars, 21 ballast cars, 94 stone dumping cars and 40 flat cars.

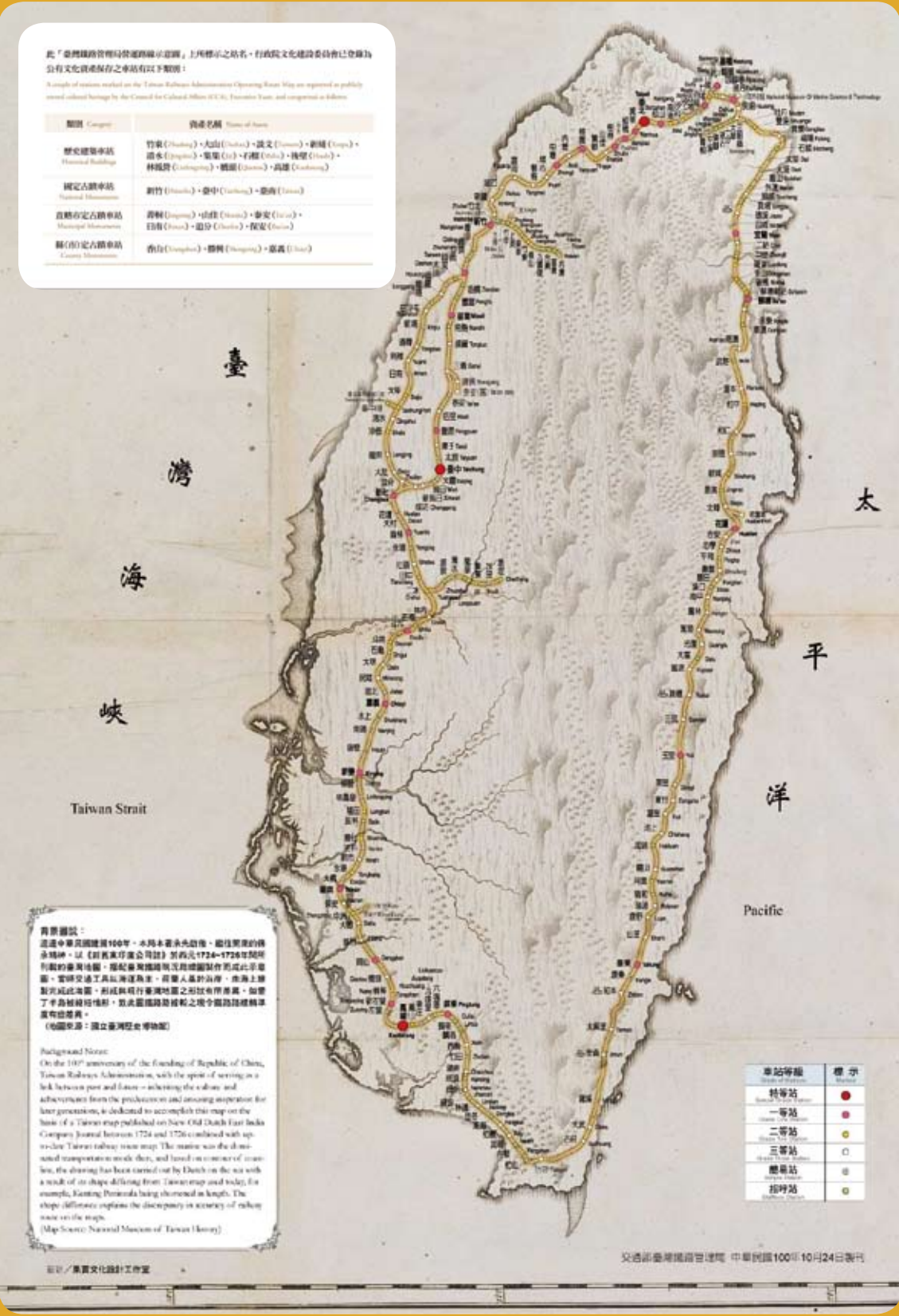
■ Operational efficiency

For the usability rates of power car reached 79.32% in 2011. Of this, 95.43% of tilting EMUs (the "Taroko Express"), 73.55% of other EMUs, 81.80% of push-pull electric trains and 79.01% of electric locomotives. 85.19% of diesel-electric locomotives and 78.66% of diesel passenger cars were usable.

此「臺灣鐵路管理局營運路線示意圖」上所有標示之站名，行政院文化建設委員會已登錄為公有文化資產保存之車站有以下類別：

Example of stations marked on the Taiwan Railways Administration Operating Route Map are registered as publicly owned cultural heritage by the Council for Cultural Affairs (CCA), Executive Yuan, and categorized as follows:

| 類別 Category | 資產名稱 Name of Asset |
|--|---|
| 歷史建築車站 Historical Building Station | 竹塹 (Zhongli), 大山 (Dashi), 淡文 (Danwen), 新屋 (Xinwu), 清水 (Qingshui), 龍巖 (Longyan), 林邊 (Linbian), 林邊 (Linseng), 麟蹄 (Lianti), 高蓬 (Gaocong) |
| 國定古蹟車站 National Monument Station | 新竹 (Xinzhong), 臺中 (Taichung), 臺南 (Tainan) |
| 直轄市定古蹟車站 Municipal Monument Station | 鹿耳門 (Luchuan), 虎尾 (Huiwei), 泰安 (Taian), 台南 (Tainan), 追分 (Zhufen), 板寮 (Banliao) |
| 縣(市)定古蹟車站 County Monument Station | 南身 (Nanyen), 麟蹄 (Lianti), 嘉義 (Jiayi) |



背景圖說：
 適逢中華民國建國100年，本局承先民啟德，繼往開來的傳承精神，以《新舊臺灣公司誌》於西元1724-1726年間所刊的臺灣地圖，搭配臺灣鐵路局現存地圖製作的此示意圖。當時交通工具以海運為主，荷蘭人基於治理，在海上繪製光復此海圖，相成與現行臺灣地圖之形狀有極差異，加蓋了半島與好地形，意欲展現陸路運輸之現今鐵路運輸轉運之重要性。
 (地圖來源：國立臺灣歷史博物館)

Background Note:
 On the 100th anniversary of the founding of Republic of China, Taiwan Railways Administration, with the spirit of serving as a link between past and future – inheriting the culture and achievement from the predecessor and inspiring aspiration for later generations, is dedicated to accomplish this map on the basis of a Taiwan map published on New Old Dutch East India Company Journal between 1724 and 1726 combined with up-to-date Taiwan railway route map. The reason was the discrepancy transportation mode then, and based on existence of sea route, the drawing has been carried out by Dutch on the sea with a result of the shape differing from Taiwan map used today. For example, Easting (Thomson) being shortened in length. The shape difference explains the discrepancy in accuracy of railway route on the map.
 [Map Source: National Museum of Taiwan History]

| 車站等級 Station Type | 標示 Symbol |
|-----------------------------|-----------|
| 特等站 (Special Class Station) | ● |
| 一等站 (First Class Station) | ○ |
| 二等站 (Second Class Station) | ○ |
| 三等站 (Third Class Station) | ○ |
| 總站 (Main Station) | ⊕ |
| 招呼站 (招呼站) | ⊙ |

交通部臺灣鐵路管理局 中華民國100年10月24日製刊

設計/策畫文化設計工作室



DT 668



02

歡慶建國百年 臺鐵系列活動

TRA Celebrations for ROC Centennial

「火車環島接力 百年車站巡禮」

"Around-the-island Train Relay: Touring a Century of Railway Stations"

「鐵道旅行・幸福100」－成功到站鐵路營徵選

"Discover Taiwan by Railway" Activity and Completion Ceremony

「鐵道人文盛會」作品

"TRA Art and Culture Summit" and Featured Artworks

臺灣鐵路124週年暨100年鐵路節慶祝大會

TRA's 124th Anniversary and ROC 100th Anniversary Joint Celebration and Ceremony

臺北車站1樓大廳廉政宣導

Anti-corruption Promotional Activity at 1st Floor Lobby of Taipei Main Station

「火車載阮向前行 臺鐵百年文物特展」

"A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics"

「臺鐵紀念商品・限定販售」商品特賣會

Limited Edition TRA Commemorative Souvenirs" Sales Event

「百人豎琴馬拉松音樂會」

"100 Harpists Marathon Concert"



火車環島接力 百年車站巡禮

為慶祝建國百年，特以CK124、光華號、EMU100、太魯閣號等12代特色車輛環島開行，並結合新竹、臺中、臺南及高雄等歷史悠久的百年車站，自99年10月10日起至100年10月底止，整合創意行銷，規劃一整年的郵輪式列車行程，於每月10、20、30日各開行一列主題郵輪式列車（除春節外），吸引國內外旅客體驗臺灣鐵道文化之美，感受全國各地豐富人文風采。共計開行36列次，載運8,142人次，營收約462萬元。

活動項目計有：體驗一日列車長吸引小朋友熱烈參與，富有寓教於樂之功能，另有鐵道影像故事比賽、10大好站好讚、國慶寶寶、美食巡禮、秘境車站探訪、母親您真偉大、10對新人結婚愛的宣言等活動。

"Around-the-island Train Relay: Touring a Century of Railway Stations"



To celebrate the 100th anniversary of ROC, TRA mobilized 12 generations of trains for an "around-the-island" train relay, including the CK124, Kwang-Hwa Limited Express, EMU100, the Taroko Express, and etc. They visited century-old stations included Hsinchu, Taichung, Tainan and Kaohsiung. This innovative promotion took place between October 10, 2010 and the end of October, 2011. Passengers embarked on "cruise-style" itineraries in trains colorfully illustrated with scenes celebrating the beauty of Taiwan's railway culture. Visitors were drawn to the event, which allowed passengers to see the rich culture and scenic beauty of the entire island. The trains were run on the 10th, 20th and 30th of each month over the course of year (except for Chinese New Year). A total of 36 trips were made carrying 8,142 passengers. Total revenue from this event was NT\$4.62 million.

Activities include experiencing a day in the life of a train conductor: an educational and fun activity for kids. Additional activities include "Impressions of the Railway" storytelling competition, "10 great train stations" activity, "Double Ten Baby" activity, a gourmet food show, visits to mysterious and wonderful train stations, mothers appreciation activity, and an activity involving declarations of love for 10 newlyweds.

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「鐵道旅行·幸福100」—成功到站



鐵道旅行 幸福100筆記書
"Discover Taiwan by Railway"
notebook



鐵道旅行 幸福100到站成功活動簽書會
"Discover Taiwan by Railway"
completion ceremony and book
signing

為推動文創產業及活化鐵路資產，由商標授權廠商製作「鐵道旅行·幸福100」筆記書，以引導民眾藉由蓋用紀念戳章方式參與多面向之鐵路旅遊，並結合優惠券活動，增加旅客利用鐵路旅遊之意願。另於100年11月20日辦理「鐵道旅行·幸福100—成功到站」活動，提供參與民眾蓋8枚隱藏版紀念戳章印外，並與在場之鐵道旅遊達人、紀念戳章刻章藝術家等人互動及分享旅遊經驗，反映十分熱絡。

"Discover Taiwan by Railway" Activity and Completion Ceremony

To support the arts and design and rejuvenate the spirit of the railways, TRA employed a trademark licensing design company to design the "Discover Taiwan by Railway" notebook. Passengers collected commemorative stamps in their notebooks, which granted them discounted travel on TRA railways. The stamps encouraged passengers to travel with TRA and experience railway culture in a different way. The completion ceremony for "Discover Taiwan by Railway" took place on November 20, 2011. Eight secret commemorative stamps were offered to the attendees. Rail passengers mingled with the designers of the commemorative stamps and shared rail travel experiences.

鐵道活動行程規劃表 Railway Activity Sample Itineraries

| 行駛年月 Time (yyyy/mm) | 行駛區間 From-To | 機車型號 Model | 年份 Year of service | 使用客車類型 Passenger Car Type | 主題 Theme | 行程規劃 Itinerary |
|---------------------------|--|---------------|-----------------------|--|---|--|
| 99.10 | 彰化-嘉義 Chiayi- Changhua | CK124 | 25 | 牽引TPK普快車 Tractor-TRK Ordinary Train | 珍愛寶島·迎慶豐年 Cherished Island- Harvest Festival | 國家廣播文物館、北迴歸線園區 National Radio Museum, The Tropic of Cancer Solar Exploration Center |
| 99.11 | 嘉義-屏東 Changhua- Pingtung | R20 | 49 | FPK10500型莒光號 The FPK10500 Chu- Kuang Express | 嘉南體驗·屏現契機 Experience Jianan- Discover Pingtung | 體驗臺糖五分車、橋頭老街巡禮、欣賞高雄 市燦爛的夜景 Mini Train Experience in Taiwan Sugar Corporation, Qiaotou Street Tour, Kaohsiung Night View |
| 99.12 | 屏東-臺東 Pingtung- Taitung | DR2700 | 55 | (光華號) The Guanghua | 事事如意·光華東逸 It's All Good- Magnificent Eastern Escape | 南迴秘境、小站新探索 South-link Line Tour, Stations Explored |
| 100.01 | 臺東-花蓮 Taitung- Hualien | R101 | 59 | 莒光號(商務車廂+ 客廳車) Chu-Kuang Express(Business Class+Lounge Coach) | 花現東風·情定縱谷 Discover East Coast- Engagement in Rift Valley | 集體結婚、蜜月旅行 Group Wedding, Honey Moon Trip |
| 100.03 | 花蓮-蘇新 Hualien- Su'aoxin | EMU100 | 67 | (恢復原塗裝編組) (Restore the original paint) | 英國貴婦·後山體驗 English Lady- The Mountain Experience | 南方澳漁港、媽祖廟祈福 Nanfangao Port, Matsu Temple |
| 100.04 | 蘇新-瑞芳 Su'aoxin- Ruifang | DR2800 | 71 | DMU自強號 DMU Tze-Chiang Limited Express | 異國情懷·黃金傳奇 Exotic Sensation- Golden Legend | 冬山站瓜棚月台、福隆自行車專用道、九 份、金瓜石 Dongshan Station the Scaffolding Platform, Fulong Bikeway, Jioufan, Jinguashin |
| 100.05 | 瑞芳-基隆 Ruifang- Keelung | EMU400 | 79 | 區間車 Local Train | 海港定情·飲水思源 Love in Harbor- Grateful Tour | 七堵機務段參訪、基隆廟口巡禮、基隆港 巡禮 "Antique President Railway Saloon Cars" Display in Taipei Inspection Branch, Miaokow of Keelung, Port of Keelung |
| 100.06 | 基隆-桃園 Keelung- Taoyuan | E1000 | 85 | P.P自強號 P.P Tze-Chiang Limited Express | 運籌帷幄·其樂陶陶 Devise Strategies- Amazing Ceramic | 鐵路節、樹林調車場、鶯歌陶瓷老街、陶 瓷博物館 Railway Festival, Shulin Railroad Marshalling Yard, Yingge Ceramic Street, Yingge Ceramic Museum |
| 100.07 | 竹南-沙鹿 (海線) Zhunan-Shalu (Coast Line) | DRC1000 | 87 | 支線柴油客車 Branch Line Diesel Passenger Car | 海洋風情·中港獨秀 Ocean Scenery- Outstanding Taichung | 臺中港區藝術園區、梧棲漁港 Taichung City Seaport Art Center, Wuqi Tourist Fish Market |
| 100.08 | 中壢-彰化 (山線) Zhongli- Changhua (Mountain Line) | EMU1200 | 91 | (紅斑馬) (Red Zebra) | 山城好客·美景天成 Time in Mountain- Perfect Scenery | 三義木雕藝術博物館、扇形車庫 Sanyi Wood Sculpture Museum, Roundhouse |
| 100.09 | 新竹-大甲 (山海線) Hsinchu-Dajia (Mountain/ Coast Line) | TEMU1000 | 95 | 太魯閣號 The Taroko | 雲端祈福·搖擺登頂 Holistic Blessing- Hiking Field | 新竹鐵道藝術村、臺中20號倉庫、日式木 造站房、大甲媽祖 Hsinchu Railway Art Village, Taichung No.20 Warehouse, Japanese-style Wooden Station, Dajia Matsu |
| 100.10 | 臺北-彰化 Taipei- Changhua | EMU700 | 96 | 阿福號 The Afu | 福氣雲集·國泰民安 Good Fortune Around- God Bless Taiwan | 鐵道藝術村、后豐鐵馬道、扇形車庫 Railway Art Village, Houfeng Bikeway, Roundhouse |



99年10月-珍愛寶島 迎慶豐年
CK124臺中、嘉義站間 (黃勳昀攝)
10/2010- Love and Celebration in Formosa
CK124 Taichung to Chiayi (Photo: Huang Xuyun)



99年11月-嘉南體驗 屏現契機
R20嘉義、屏東站間 (邱家增攝)
11/2010 Experience Chiayi and Pingtung
R20 Chiayi to Pingtung (Photo: Chiu Jiazhen)



99年12月-事事如意 光華東逸
DR2700屏東、臺東站間 (連馬世駿攝)
12/2010- Radiant Good Fortune
DR2700 Pingtung to Taitung (Photo: Lian Mashi)



100年1月-花現東風 情定縱谷
R101臺東、花蓮站間 (吳長智攝)
1/2011 Romantic Valleys: Taitung and Hualien
R101 Taitung to Hualien (Photo: Wu Zhangzhi)



100年3月-英國貴婦 後山體驗
EMU100花蓮、蘇澳新站間 (陳柏儒攝)
3/2011 - Britain Lady in the Mountain
EMU100 Hualien to Suao (Photo: Chen Boru)



100年4月-異國情懷 黃金傳奇
DR2800蘇澳新、瑞芳站間 (翁弘翔攝)
4/2011 Golden Legends in Faraway Lands
DR2800 Su'aixin to Ruifang (Photo: Weng Hongxiang)



100年5月-海港定情 飲水思源
 EMU400瑞芳、基隆站間 (陳振芳攝)
 5/2011 Water from the Source and Love at the Docks
 EMU400 Ruifang to Keelung (Photo: Chen Zhenfang)



100年6月-運籌帷幄 其樂陶陶
 E1000基隆、桃園站間 (陳振豐攝)
 6/2011 Prosperity and Blessings
 E1000 Keelung to Taoyuan (Chen Zhenfeng)



100年7月-海洋風情 中港獨秀
 DRC1000竹南、沙鹿站間 (海線-蘇奕肇攝)
 7/2011 Ocean Scenes and a Special Dock
 DRC1000 Zhunan to Shalu (Coast Line Photo: Su Yizhao)



100年8月-山城好客 美景天成
 EMU1200中壢、彰化站間 (山線-蘇賢耘攝)
 8/2011 Visitor in Beautiful Mountain Scene
 EMU1200 Zhongli to Changhua (Mountain Line Photo: Su xianyu)



100年9月-雲端祈福 搖擺登頂
 TEMU1000新竹、大甲站間 (山海線-吳漾攝)
 9/2011 Praying in the Clouds, Swaying at the Peak
 TEMU1000 Hsinchu to Dajia
 (Mountain & Coast Line Photo: Wu yang)



100年10月-福氣雲集 國泰民安
 EMU700臺北、彰化站間 (陳振芳攝)
 10/2011 Peace and Prosperity in the Clouds
 EMU700 Taipei to Changhua (Photo: Chen Zhenfang)



徵選「鐵道人文盛會」作品

100年1月22日於花蓮工務段邀請藝文家、鐵道專家及愛好者舉行座談會，並首度辦理「鐵道人文攝影、詩詞、小品文」作品徵選活動，每組各取優選3名及佳作10名。



攝影：第1名—歸途無障礙
No Obstacles to Getting Home



攝影：第2名—晨光白鐵 White Train at Dawn



攝影：第3名—侯硐鐵道風光
Third Place –Rail Scene of Houtong

臺灣鐵路124週年暨100年鐵路節慶祝大會

100年6月9日鐵路節，於全線各站展開慶祝活動，並於本局臺北火車站5樓演藝廳舉辦慶祝大會，由毛部長治國及范局長植谷頒發機務處退休同仁陳樹根先生特殊貢獻獎、臺鐵之友、優良志工及百站達人等獎項，大會亦穿插基隆地區雙全幼稚園小朋友打太鼓及臺鐵員工號誌旗舞等演出節目。

另邀請劉興欽教授設計代表臺鐵形象之人物與海報漫畫，舉辦「廉政宣導」無償授權儀式（期限為5年），由本局作為非營利之公益活動宣傳使用。范局長特別回贈劉教授臺鐵站長制服一套，並於慶祝大會中親自穿戴扮演，一圓劉教授成為「臺鐵站長」的夢想！

又於臺北車站大廳1樓舉行「慶生大會」，由交通部毛部長與局長共同主持切蛋糕儀式，本局勞工教育推行委員會特別安排社團「歌唱班」伴唱「生日快樂」、「祝你幸福」及「丟丟銅」3首歌，分享喜悅氛圍，並祝福臺鐵與大家，事事順利如意。

臺北車站1樓大廳廉政宣導

為宣導政府廉政政策，6月9日鐵路節當日於臺北車站1樓大廳東側穿廊舉辦「填問卷·送好禮」（廉政機器娃扇子&環保袋）以及廉政知識有獎徵答活動，會場劉興欽教授之漫畫繪圖，製作成大型背板及人型立牌、氣球等，以吸引往來旅客目光，民眾及遊客十分熱情踴躍參與；另於活動現場抽出有獎徵答得獎者總計100名，其中獲得頭獎「車票式隨身碟（4G）」的有10位、獲得普獎「永保安康／榮華富貴撲克牌1組」的有90名，得獎名單於6月10日公佈於本局網站。



廉政宣導漫畫
Anti-corruption Promotional Cartoon

"TRA Art and Culture Summit" and Featured Artworks

On January 22, 2011, TRA's Hualien Trackwork Engineering division hosted a summit meeting for artists, railway experts and hobbyists. It's the first time for TRA to hold a competition for "Photographs, Poems and Short Stories on the Railway". In each category, three winners were selected along with ten honorable mentions.

TRA's 124th Anniversary and ROC 100th Anniversary Joint Celebration and Ceremony

TRA's 124th anniversary was on June 9, 2011 and celebratory events were held at every TRA station. The main celebration ceremony was held in the 5th floor auditorium at Taipei Main Station. Minister of MOTC Mao Zhiguo and TRA Director General Frank Fan presented various awards, including: Friends of TRA Award, Excellence in Charity, Visitors to 100 Stations and Special Achievement Award to Shugen Chen, a retiring colleague from the maintenance department. The ceremony also featured a live "railway signal flag" dance performance from TRA employees, and accompanied by Taiko drumming by students from Keelung's Shuangquan Elementary School.

The ceremony was also held for TRA to officially accept the cartoon character and comic posters designed by Professor Xingqin Liu for TRA's five-year "anti-corruption promotional activity". Professor Liu designed the posters free of charge and TRA will be promoting this activity through non-profit public benefit activities. Director General Fan presented Professor Liu with a station master uniform, and Professor Liu donned the uniform to accomplish his dream of being a TRA station master.

The "Anniversary Party" was held in the 1st floor lobby at Taipei Main Station. Minister Mao and Director General Fan led the cake-cutting ceremony. TRA Worker's Education Promotion Committee made special arrangements for their singing group to sing "Happy Birthday", "We Wish You Good Fortune" and "Throw the Copper". The atmosphere was festive and joyous and the singers wished TRA and the attendees all the best in their endeavors.

Anti-corruption Promotional Activity at 1st Floor Lobby of Taipei Main Station

To promote the anti-corruption policies of government on June 9th, TRA held a "Fill out a Survey, Get a Prize" activity on the east passageway of the 1st floor lobby at Taipei Main Station. The cartoons designed by Professor Xingqin Liu were used to create a large-scale banner, a life-sized floor standing sign and balloons to attract the attention of passengers and the public, who participated in the event with enthusiasm and zeal. Prizes were an "Anti-Corruption Robot" fan and tote bag. There were also prizes offered for participants through a "knowledge of anti-corruption" quiz. A hundred prizes were given out to attendees who completed the anti-corruption quiz. Ten 1st-place prizes of a "Ticket-Style 4G USB drive" were awarded. Ninety regular prizes of "Health and Prosperity Poker Cards" were awarded. A list of prize winners was published on the TRA website on June 10.



交通部毛部長治國與范局長植谷共同主持慶生切蛋糕儀式
Minister of MOTC Mao Chi Kuo and Director General Frank Fan jointly host the Anniversary Party and cake-cutting ceremony



勞教會歌唱班一合唱「丟丟銅」、「祝你幸福」
TRA Worker's Education Promotion Committee's Singing Group sing "Throw the Copper" and "We Wish You Good Fortune".



雙全幼稚園小朋友打太鼓
Taiko drumming by Shuangquan Elementary School students



范局長植谷贈予劉教授臺鐵站長制服一套
Director General Frank Fan Presents Professor Xingqin Liu with station master uniforms



「火車載阮向前行 臺鐵百年文物特展」



為慶祝建國100年暨縱貫鐵路通車103年，特委託國立臺灣博物館於臺北車站多功能展演廳舉辦「火車載阮向前行—臺鐵百年文物特展」，展出內容以臺灣鐵路興建及營運發展為主軸，並以實體物件及影像資料等展品，呈現臺灣鐵路建設史、技術發展演進以及觀光旅遊演變等，具體展出臺灣鐵道清代迄今之發展歷程。這次主題展覽最大的特色，不僅有火車模型，更有包羅萬象的鐵道文物展品，如「看棚房」、「鐵路號誌」、「人力巡道車」、「機械腳踏車」等鐵路文物精華，計有500餘件，共分10個區域，展場中配置有靜態展品、動態影音及互動設施，以增加趣味性。

從100年10月24日開幕至12月4日為止，共計展出42天，參觀民眾超過20萬人次。另辦理團體導覽共計35場次、親子活動12場次，將百年臺鐵之歷史文物與各項設施設備發展之歷程傳達給社會大眾，效果卓著。據問卷調查，參觀民眾對此次展覽評價均為正面，滿意度更超過92%，讓本局企業形象提升，成果豐碩，並為籌設中之臺灣鐵路博物館奠下良好的基礎。



臺灣鐵道線路一覽圖封面及目錄。臺灣鐵道線路一覽圖為大正十年（西元1921年），由臺灣總督府鐵道部發行，至今已有90年歷史。內容提供當時的鐵道線路，依其橋樑及隧道、線路、地盤（路基）、勾配（坡度）、停車場（車站）、勾配間距離、施工起面高度、哩程、曲線及軌條（鐵軌）重量別等，各站間有詳細的連續分佈圖

Taiwan Railway Map: Cover and Contents. Taiwan Railway Map is a 90-year-old document issued in the 10th Taisho year (Gregorian 1921) by the Government-General of Taiwan's railway division. It includes the original Taiwan railway map as well as information (in Japanese) on bridges, tunnels, routes, subgrades, slopes, stations, distance between slopes, construction surface heights, general distances, curves, and railway track weight classifications. There are also detailed layout charts for each station.

「臺鐵紀念商品·限定販售」商品特賣會

為配合臺灣鐵路百年文物特展，舉辦「臺鐵紀念商品·限定販售」商品特賣會及「記憶中火車的滋味」動態展演。限定販售之紀念商品中包含絕版便當空盒、懷舊玻璃杯組、懷舊列車長驗票鉗等多種富有紀念性之鐵路文物。在文物特展現場展示歷代車勤服務員制服，並定時動態表演舊時車上倒茶水服務；另推出以原住民特色香料製成的馬告雞腿與滷蛋擺飾成「100」意象的「臺灣鐵路百年文物特展馬告雞腿特製便當」供民眾購買。



臺鐵紀念商品展示
TRA Souvenirs being displayed

「百人豎琴馬拉松音樂會」

100年12月24日於臺北車站1樓多功能展演廳合作舉辦「建國一百年·百人豎琴馬拉松音樂會」活動，由國家交響樂團（NSO）豎琴首席解瑄老師等百餘位知名豎琴家接力演出，現場座無虛席，頗受好評。



臺鐵百年文物展馬告雞腿特製便當
"TRA Centenary Exhibition Special Magao Chicken Leg Boxed Lunch"

"A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics"

To celebrate the 100th anniversary of the founding of the ROC and the 103rd anniversary of TRA history, a special committee worked with the National Taiwan Museum to hold "A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics" in multi-purpose auditorium at Taipei Main Station. This exhibition of artifacts and photographs focused on the construction and development of Taiwan's railway system. Visitors saw the entire course of Taiwan's railway history from the Qing dynasty until today—the construction methods, the evolution of railway technology and the development of railway tourism. The highlights of the exhibition were not only models of trains but a comprehensive set of railway artifacts including: a "railway gate shed", "railway signals", a "human-powered railroad car" and a "mechanical bicycle". A total of 500 items were shown in 10 exhibition areas. Static displays, audio-visual presentations and interactive installations were all included to make it an interesting exhibition.

The exhibition lasted for 42 days from October 24 to December 4, 2011. More than 200,000 people attended the exhibition in total. There were also 35 guided tours for special groups and 12 parent-child activities. Overall, it was an outstanding exhibition, sharing the 100-year development of TRA through its historical relics and exhibits with the general public. Questionnaires handed out to attendees revealed that the public responded positively to the event with a 92% satisfaction rate. The event elevated the image of TRA and produced fruitful results. TRA gained valuable experience for the TRA Museum currently under preparation.



開幕典禮大鼓陣與餐旅服務人員奉茶
Opening ceremony with drum troupe performance and hospitality staff presenting tea



交通部毛部長治國與范局長植谷舉行文物展揭幕儀式
Minister of MOTC Mao Chi Kuo and Director General Frank Fan host the opening ceremony of exhibition



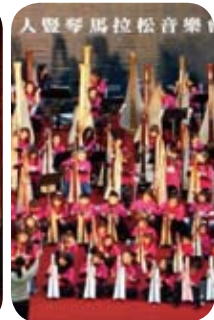
范局長植谷與陳前局長德沛及穿著歷代鐵路制服服務人員合影
Director General Frank Fan and Former Director General, Chen Depei, posing with staff in previous generation TRA uniforms

"Limited Edition TRA Commemorative Souvenirs" Sales Event

In conjunction with the "Centenary Exhibition of TRA Relics", TRA held a "Limited Edition Commemorative Souvenir" sales event and a "Memories from the Train" live performance. The limited edition souvenirs to commemorate the occasion included: vintage steel lunch boxes, vintage glass sets and vintage train conductor ticket clamps. At the exhibition, TRA employees displayed service uniforms from previous generations. Regular live performances of tea pouring rituals from previous eras were also held. In addition, the "TRA Centenary Exhibition Special Magao Chicken Leg Boxed Lunch" were offered for sale.

"100 Harpists Marathon Concert"

On December 24, 2011, TRA held the "100 Harpists Marathon Concert" in the multi-purpose auditorium at Taipei Main Station. The concert was led by the National Symphony Orchestra's first-string harpist, Jie Xuan, and featured over 100 other well-known harpists. The packed concert received wide-spread acclaim.



建國一百年·百人豎琴馬拉松音樂會(在臺北車站多功能展演大廳演出)
"100 Harpists Marathon Concert" (at Taipei Main Station's Multi-purpose Auditorium)



內灣線 Neiwán line

03

創新業務與成果實錄

Innovations Business and Achievements



創新業務 Innovations

業務創新

Operational Innovations

技術創新

Technological Innovations

成果實錄 Achievements

交通部100年創新提案制度獲獎

MOTC Centennial Award for Innovative Transportation Projects

第11屆公共工程金質獎獲獎

11th Public Construction Golden Quality Award

全國100年度節水評比競賽（國營事業組）獲獎

National Centennial Award for Water Conservation (State-Owned Enterprises Category)

本局100年創新及研發獎獲獎

TRA Centennial Innovation and R&D Award

創新盒餐（健康養生便當）及創新商品（臺鐵十大伴手禮）

Innovative Meals (Healthy Boxed Lunches) and New Products (Ten Major Souvenirs from TRA)

環保綠建築車站及設施

Eco-friendly rail stations and facilities



創新業務

(一) 業務創新

■ 建構電子票證運輸多卡通

100年1月2日起配合沙崙支線通車營運，建構電子票證運輸多卡通（含悠遊卡、臺灣通及ETC），6月30日起擴大辦理電子票證適用範圍，乘車區間延伸為福隆—瑞芳—基隆—新竹及南科—中洲—沙崙共42站。11月11日配合內灣線（含六家）通車復駛，同步於北新竹、世博、竹科、竹中、六家、竹東及內灣等7站開辦多卡通電子票證乘車業務。100年底全線共計49站提供電子票證服務，每日使用約16萬人次，大幅提升旅客乘車之便利性，節省購票及進、出站時間，符合節能減碳環保概念及減少票紙支出成本。並持續推動嘉義—屏東間、六家及內灣支線票證運輸多卡通。

■ 推出會員服務系統

100年3月30日起開始實行會員制，提供會員消費積點紅利及媒合訂票機制，截至100年12月底共有會員59,055人，委託訂位媒合成功率占實際媒合45.18%，並利用此系統蒐集分析旅運型態，作為差異化行銷之參考。

■ 辦理臺北—羅東—花蓮鐵路聯運

100年6月29日起與國道客運業者（首都、葛瑪蘭客運）辦理鐵路聯運，以羅東站為上、下車轉乘地點，上行（花蓮往臺北）旅客由花蓮站搭乘臺鐵區間車在羅東站轉乘公路客運，下行（臺北往花蓮）旅客於臺北搭乘公路客運後在羅東火車站轉乘臺鐵區間車，聯運票價約為各單程票價83折，且行駛時間與推拉式自強號相當，截至100年12月底共計20,519人。

■ 開放超商取票服務

100年12月22日開放中華郵政及統一、全家、萊爾富及OK超商，提供取票服務，提供民眾取票便利性，節省旅客購票時間與成本，符合社會E化的潮流與趨勢。

■ 推動寒暑期青年自助旅遊專案

持續推行青年自助旅遊寒暑假活動，寒暑假與中華民國國際青年之家協會合作辦理青年搭火車自助旅遊活動，年度計售出751張。另給予持該協會發行之「HI國際青年旅社卡」之旅客，享有購買鐵路便當、鐵路商品95折之優惠。

■ 持續推行各類主題郵輪式列車，開行懷舊觀光列車

- (1) 100年度計開行187列次郵輪式列車，載運4萬4,987人次，並榮獲99年度行政院第三屆政府服務品質獎—服務規劃機關類優選殊榮及99年度提升政府財政效能獎殊榮。（99年參獎100年頒獎）
- (2) 在環島鐵路觀光計畫方面，舊山線復駛不但保存了鐵路傳統文化，亦對苗栗縣觀光事業注入新契機，100年度計開行懷舊觀光列車83趟次

■ 開行兩鐵（自行車）網路訂票系統

配合100年9月28日年度時刻調整，及人車同行車廂陸續改造投入營運，增加6列次南迴線莒光號附掛人車同行車廂，並於100年10月4日起開始兩鐵（自行車）網路訂票上線服務。

■ 「鐵道旅行·幸福100」筆記本

該活動獲選為天下雜誌第465期「慶百年—你不能錯過的12件事」之一，並藉由此書發行，拉近與旅客的關係，有助於提升本局形象並促進國內旅遊及增益相關收入，本活動筆記書總授權數為26,000本，授權金收入15萬6,000元，共2,645位旅客完成百站成功認證。

■ 研發具健康養生概念之便當

與馬偕醫院合作開發養生便當，藉由營養諮詢師制度的引進，提升便當品質，於3月21日推出「香烤雞腿」、「烤鮭魚」及「素食」3款健康養生便當後，於10月5日再推出「迷迭香烤雞腿」、「檸檬香茅鯖魚」及「茄汁素排（蛋奶素）」3款健康養生便當。另首創以火車頭的塗裝樣式做為便當盒蓋之包裝設計圖，在盒蓋上並印有健康小叮嚀及營養標示，讓民眾在享受美食的同時又能兼顧健康。

1. Operating Business Innovations

■ Establishing E-tickets for multipass

On January 2, 2011, TRA established E-Tickets Multipass platform in conjunction with the opening of Shalun Line. The Multipass platform is compatible with EasyCards, Taiwan SmartCards and ETC. On June 30, TRA expanded the scope of E-ticket integration to include 42 local train stations on the Fulung – Ruifang –Keelung –Hsinchu and Nanke – Zhongzhou – Shalun lines. On November 11, in conjunction with the renovation of the Neiwan Line (including Liujia), TRA expanded multipass E-ticket integration to 7 stations of North Hsinchu, Shibo, Zhuke, Zhuzhong, Liujia, Zhudong and Neiwan. At the end of 2011, a total of 49 stations were integrated into the E-ticket system. An average of 160,000 passengers used Etickets every day. Passengers enjoyed the benefits of increased convenience and decreased the time needed to enter and exit stations. The E-ticket system also helped carbon reduction efforts and decreased cost from paper tickets. TRA will continue E-ticket integration at stations between Chiayi and Pintung as well as stations on the Liujia and Nanwan lines.

■ Launching the traveler membership service system

On March 30, 2011, TRA launched membership system. The system allows members to accumulate travel points with benefits when they purchase tickets. It also provides a reservation matching system for members. As of December 2011, the system had 59,055 members. The reservation matching system successfully reserved tickets in 45.18% of attempts. The membership system will allow TRA to collect and analyze travel information on its customers and allow TRA to use differentiated marketing to more effectively serve the passengers' needs.

■ Establishing the Taipei–Luodong–Hualien rail-to-road transportation alliance

On June 29, 2011, TRA established a rail-to-road transportation alliance with private bus services (Capital and Kamalan) with Luodong station serving as the transfer site. Northbound passengers (Hualien to Taipei) take a TRA local train at Hualien station to Luodong station for a transfer to a bus. Southbound passengers (Taipei to Hualien) take a bus service from Taipei station to Luodong station, where they transfer to a TRA local train. To compare with individual one-way tickets, the ticket price of transportation alliance is discounted by 17%. The travel time for the trip is comparable to that of Tzuchiang Express. As of December 2011, a total of 20,519 passengers have taken trips through the transportation alliance.

■ Starting convenience store ticket sales

On December 22, 2011 TRA began offering ticket sale services at Chunghwa Post Offices and 7-11, Family Mart, Hi-Life and OK Mart stores. TRA passengers will benefit from greater convenience and decreased time and cost in ticket purchases. TRA will keep in step with E-Society trend.

■ Promoting summer/winter break independent travel packages for youth

TRA continued to work with the Taiwan Youth Hostel Association to promote independent travel packages for youth during summer and winter break. A total of 751 packages were sold during the year. TRA also offered a 5% discount on TRA meals and merchandise for passengers who held the "HI International Youth Travel Card" issued by the Taiwan Youth Hostel Association

■ Continuing to promote various "cruise trains" and establishing "nostalgic tourism" trains

- a. In 2011, TRA conducted a total of 187 "cruise-style" train trips for 44,987 passengers. For this service, TRA was honored with the 2010 Executive Yuan Third Government Service Quality Award in the Service Programming category and the 2010 Government Financial Performance and Improvement Award
- b. TRA also raised the bar in around-the-island travel. The renovation of the old mountain line not only helped to preserve railway culture and traditions but also brought Miaoli County new tourism opportunities. In 2011, TRA ran a total of 83 trips on its "nostalgic tourism".

■ Launching internet ticket reservation system for bicycle-friendly trains

To accommodate the September 28, 2011 timetable adjustment and continue its efforts to renovate trains to allow passengers to bring bicycles on board, TRA added 6 bicycle-friendly



(二) 技術創新

■ 鐵路防脫角鐵托架改良研發案

防脫角鐵托架目前採用壓板及螺栓固定，但受氣候影響螺栓螺紋常遭鏽蝕，拆裝時常需將托架洗孔並新購螺栓。本案將托架之固定方式由壓板改為PANDROL彈簧扣夾，其施工簡易可節省工率及材料，對路線養護作業之推展有重大影響。



班多爾扣夾 Pandrol FASTCLIP

■ 樟樹灣至誠正國中擴建三軌工程開挖工法

大坑溪河底隧道未用傳統圍堰配合半逆打施工方式，改採新奧隧道增長穿越大坑溪的方式施作，並以河床底板加固工程方式取代堤防破堤，免除破堤之風險及受汛期限制施工之困擾，可有效縮短施工工期。

■ 北湖口車站自充填混凝土工法

- (1) 使混凝土容易澆置，不須搗實仍不造成蜂窩，可維持緻密性。
- (2) 克服鋼筋密集、封閉空間或幾何形狀複雜之構件難以或無法振動搗實之施工問題與困難。
- (3) 免除泵送加水使混凝土品質降低之虞。
- (4) 減低對混凝土澆置時所需技術性勞力之依賴。
- (5) 縮短整體施工時程。
- (6) 降低整體工程成本。
- (7) 提高混凝土構造物水密性及耐久性。

■ 90度旋轉式車頂作業安全防護設備（安全掛桿）

為配合柴電車庫車頂作業，防止工作人員無處可附掛安全帶之困境。固定式起重機下方無法採用固定式安全母索，為配合人員及起重機同時作業，且兩者作業不相抵觸，設計隨時可以變換位置又不失安全母索功能之機具設備替代。經多方考量，採行定點90度旋轉吊掛方式。母索部分採用力霸樑掛桿處理，增加人員動態作業面積。

■ 自行研發製作逆轉機車輪拆卸工作檯

檢修柴油客車時，逆轉機是控制柴油客車前進、後退的主要裝置，每次更換車輪時，須先將逆轉機分解後才可將車輪退出，在檢修時程上佔相當多的時間，如果不用分解逆轉機就可將車輪拆下，則可縮短檢修時程，增加車輛使用率，更可以節省逆轉機檢修費用。

利用報廢設備拆下之零組件（油壓機、油壓缸）及採購鋼材自行研發製作可以不用分解逆轉機就可將車輪拆卸之工作檯；設計時一併將保養之所有型式之逆轉機、減速齒輪箱皆納入適用範圍。



90度旋轉式車頂作業安全防護設備
90-degree Rotating Safety Equipment



完成之車輪拆卸工作檯
Completed wheel disassembly work table



逆轉機車輪拆卸
Reversing gearbox wheel disassembly

trains to Chu-kuang Express in south-link . TRA also launched its Internet reservation service for bicycle-friendly trains on October 4, 2011.

| "Discover taiwan by railway" notebook

This TRA activity was selected by the 465th issue of Commonwealth Magazine as one of the "12 Centennial Events You Don't Want to Miss." Publishing the notebook allowed TRA to build a deeper relationship with TRA passengers, improve its image and stimulate the domestic tourism industry to add revenue. TRA printed a total of 26,000 notebooks with revenue of NT\$156,000. A total of 2,645 passengers completed the 100-station challenge.

| Researching and Developing Healthy Boxed Lunches

TRA, in partnership with Mackay Hospital, introduced healthy, higher quality boxed lunches through the "Nutritional Consultant Program." On March 21, TRA introduced the following healthy boxed lunches: "Grilled Chicken Leg," "Grilled Salmon" and "Vegetarian." On October 5, TRA introduced the "Rosemary Grilled Chicken," "Lemongrass Mackerel" and "Tomato Sauce Vegetarian Steak (includes eggs and dairy)" boxed lunches. In addition, it's the first time for TRA to innovatively make boxed lunch covers that looked like locomotive engines. The boxed lunch allowed passengers to enjoy delicious meals and be conscious of their health at the same time.

2. Technological Innovations

| Anti-slip rail fastener modification R&D project

TRA currently uses baseplates and bolts in its rail fastening system. Corrosion due to weather often affects the nuts and screws. When removing rail fasteners, TRA employees usually have no choice but to strip the bolts and purchase new replacements. This project proposes the replacement of the baseplate-based rail fastening system with the Pandrol FASTCLIP rail fastening system. This would significantly benefit rail maintenance efforts, simplifying the task and decreasing the amount of work and expense required (See Illustration).

| Third rail expansion excavation connecting zhangshuwan to cheng zheng junior high school

TRA did not use a traditional cofferdam to accommodate the semi-top-down construction method in the tunnel under Dakeng River. Instead, it switched to the New Austrian Tunneling Method to go through the Dakeng River. The riverbed bottom was fortified instead of using dike excavation to avoid the risks of dike excavation and limitations due to seasonal flooding. This effectively shortened the work period for this task.

| Use of self-compacting concrete at north hukou station

- a. Allows easy pouring of concrete without need for tamping. Does not cause honeycombs and maintains density.
- b. Overcomes difficulties in vibration tamping due to closely placed fixtures, enclosed spaces or complicated geometries of components
- c. Avoids the issue of deteriorating concrete quality from pumping water.
- d. Reduces reliance on skilled workers for concrete pouring.
- e. Reduces overall construction time.
- f. Reduces overall construction cost.
- g. Increases the water tightness and durability of concrete structures.

| 90-degree rotating safety equipment (safety rails)

For construction work on the diesel-electric trains' rooftops, TRA implemented fixed 90-degree rotating safety guardrails. The guardrails gave workers a place to attach their safety belts. Additionally, it resolved the issue of fixed cranes not having main safety cables below so that workers could not work on roofs simultaneously with cranes. TRA needed a way to allow workers to adjust their positions without giving up their main safety cables and arrived at this solution.

| TRA developed and produced reversing gearbox wheel disassembly table

In the inspection and repair of diesel passenger trains, the reversing gearbox is the primary equipment in charge of controlling the forward and backward movement of the train. When changing train wheels, one must first disassemble the reversing gearbox before removing the



自行研發製作逆轉機車輪拆卸工作檯

檢修柴油客車時，逆轉機是控制柴油客車前進、後退的主要裝置，每次更換車輪時，須先將逆轉機分解後才可將車輪退出，在檢修時程上佔相當多的時間，如果不用分解逆轉機就可將車輪拆下，則可縮短檢修時程，增加車輛使用率，更可以節省逆轉機檢修費用。

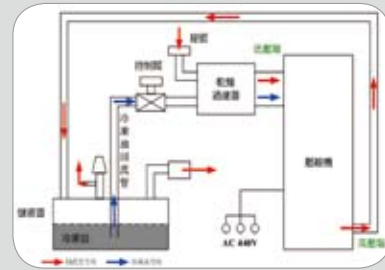
利用報廢設備拆下之零組件（油壓機、油壓缸）及採購鋼材自行研發製作可以不用分解逆轉機就可將車輪拆卸之工作檯；設計時一併將保養之所有型式之逆轉機、減速齒輪箱皆納入適用範圍。

自製真空泵

針對客車空調機之維修，真空泵為其中之關鍵設備。隨著時間增加，真空泵日漸老舊，更換新品已勢在必行。但採購新真空泵曠日費時且增加營運成本。為使空調機維修進度按照預定時程進行，故以廢物利用之方式，自製研發真空泵，以供空調機維修使用。

高頻波濾波器

本局沙崙線自通車後，發現600型電聯車行駛時會產生高頻突波（諧波），造成電車線常有電壓過高之現象。導致岡山變電站T相P40真空斷路器，因過壓造成每周跳脫10餘次。故利用電容器將高頻電壓旁路，以降低突波對設備的影響。由於現有諧波濾波器，主要是針對3、5次諧波之改善，故將舊有諧波濾波器修改為高頻諧波濾波器，以改善高次諧波對電車線電壓所造成之影響與危害，以增進行車安全。



真空泵作用示意圖

此系統使用3 Ψ AC440V 60HZ電源利用壓縮機進行抽真空動作

Schematic Diagram of Vacuum Pump

This system uses a 3 Ψ AC440V 60HZ power supply and a compressor for vacuum pumping



自製真空泵（圖左）與廠商新品（圖右）之外觀比較

Comparison of TRA produced vacuum pump (left) and new manufacture's vacuum pump (right)

成果實錄

交通部100年創新提案制度獲獎

獲獎提案1：善用重新粉刷時機，根據各地景觀特色，彩繪各月臺雨棚之樑柱。（八堵站一站長楊其賢、站務佐理陳玉蘭，榮獲創新獎管理類甲等獎。）



在第2月台有貓咪圖案處候車可到侯硤貓村
An illustration of a cat on Platform 2 reflecting the fact that trains can go to Houtong's Cat Village from here.



到第2月台候車可先欣賞到花蓮長春祠水勢
豐沛如萬馬奔騰的瀑布風光
Admiring the beauty of Hualien's Changchun Temple waterfall (scenery like thousands of horses racing down the hill) from Platform 2.



要到平溪線的旅客請到有天燈的鋼樑
柱處候車
Passengers headed to Pinghsi can wait by the pillar with the painted Chinese lanterns.

wheel , TRA independently researched, developed and produced a device for removing the wheel without disassembling the reversing gearbox. TRA used spare parts from scrapped trains (hydraulic machines, hydraulic cylinders) and procured steel materials to create a work table TRA designed the work table to be compatible with every type of reversing gearbox and decelerating gearbox.

| TRA developed and produced reversing gearbox wheel disassembly table

In the inspection and repair of diesel passenger trains, the reversing gearbox is the primary equipment in charge of controlling the forward and backward movement of the train. When changing train wheels, one must first disassemble the reversing gearbox before removing the wheel , TRA independently researched, developed and produced a device for removing the wheel without disassembling the reversing gearbox. TRA used spare parts from scrapped trains (hydraulic machines, hydraulic cylinders) and procured steel materials to create a work table TRA designed the work table to be compatible with every type of reversing gearbox and decelerating gearbox.

| TRA produced vacuum pump

The vacuum pump is a critical component in the maintenance of passenger car air conditioning systems. Vacuum pumps wear out with time and must be replaced, which adds to the cost of the transportation system over time. To keep air conditioning maintenance on a regular schedule, TRA used scrap materials to develop and construct a vacuum pump for air-conditioning maintenance purposes.

| High-frequency wave filter device

When Shalun line was opened, it was discovered that the 600 series EMU created high-frequency surges (harmonics), which caused frequent voltage overloads in train cables. As a result, the Gangshan Transformer Substation's T-type P40 Vacuum circuit breaker was tripped more than 10 times a week. This was due to the use of capacitors to bypass the high-frequency voltages and decrease the effect of surges on equipment. In response, TRA converted the old harmonic wave filter devices aimed at the third and fifth harmonics to filtering high-frequency harmonics. This ameliorated the impact and dangers of high-frequency harmonics on train cable voltages and increased train safety.

Achievements

| MOTC centennial award for innovative transportation projects

First award-winning project: During station repainting, TRA employees took the opportunity to paint the canopy pillars on station platforms with colorful illustrations reflecting the scenery at the station (Badu Master Qixian Yang and Station Affairs Assistant Yulan Chen received the award for excellence in the management category) .

Second award-winning project: The TRA souvenir, "TRA Does Not Derail" loving paperweight, was constructed from recycled scrap rail materials. This souvenir elevated the image of TRA and displayed its creative spirit (Catering Services Inspector Shixiung Chen and Officer Shujun Cao received the award for excellence in the management category).

Third award-winning project: The art sculpture, "Passing the Torch", was made from recycled scrap materials. This project displayed the creativity, talent and ingenuity of TRA employees. As an additional benefit, it increased the artistic flavor of the Fugang factory yard (Taipei Workshop's Zhengjin Lee received the award for excellence in the engineering category).

| 11th public construction golden quality award

The electrical department of Hualien rail section implemented the "Around-the-island Rail System Safety Improvement Plan (engineering project to replace directional indicators for Hualien's local line)" and received the 11th Public Construction Golden Quality Award. This plan created second-generation directional indicators to integrate indication signals at all level crossings and increase level crossing safety. The accomplishments included:



第11屆公共工程金質獎
11th Public Construction Golden Quality Award



獲獎提案2：「鐵不出軌」愛情文鎮-為拓增本局鐵道紀念商品形象，重新妥善運用汰換之鐵軌廢物料，製作成為紀念商品，推廣鐵道文創產業與意象。（餐旅服務總所一視察陳世雄、課員曹淑君，榮獲創新獎管理類甲等獎。）



第一代愛情文鎮烙上「鐵不出軌」
First generation loving paperweight with the inscription "TRA Does Not Derail"



第二代愛情文鎮主攻年輕族群
Second generation loving paperweight aimed at the youth market



第三代愛情文鎮「YES I DO」
Third generation loving paperweight with the words "Yes I Do"

獲獎提案3：「藝術創造一薪火相傳」—整理、整頓現有待報廢物料，觸發員工的腦力激盪，展現各項藝術創作天分，並增加富岡新基地藝術氣息，呈現各種創作藝術與富岡基地藝術氣息之附加價值。（臺北機廠—李正進，榮獲創意獎工程類。）

第11屆公共工程金質獎獲獎

本局由花蓮電務段主辦之「環島鐵路整體系統安全提升計畫（花蓮電務段轄區列車方向指示器新設工程）」獲第11屆公共工程金質獎優等肯定，本案整合鐵路平交道標語，改善鐵路平交道安全，新增第二代新型列車方向指示器，傳達用路人穿越平交道時有關行車安全訊息，降低事故發生，其顯著效益如下：

- (1) 增加平交道字幕循環宣導功能，提升平交道交通安全。
- (2) 使用環保節能之LED顯示器模組，響應政府節能減碳、永續經營之政策。
- (3) 本案結合「平交道遠端監控系統」，可即時修改顯示字幕，並可提供地方機關及民間團體作為政令及活動宣導使用，充分展現臺鐵互動親和力及熱誠服務之形象。



富岡基地藝術饗宴
Fugang factory yard art banquet



薪火相傳
"Passing the Torch"

全國100年度節水評比競賽（國營事業組）獲獎

本局彰化機務段榮獲經濟部水利署100年度全國機關節水績優單位（國營事業組）第三名。

- (1) 地下管線、設備管線、馬桶、小便斗及水龍頭漏水檢修
- (2) 採用省水器材：兩段式沖水器（馬桶）、噴霧式水龍頭（洗手台）及感應式沖水（小便斗）
- (3) 利用生活排放污水及RO飲水機排放水來澆灌花木、沖廁、清洗火車車身等
- (4) 節約用水教育宣導：標語張貼及日常生活教育
- (5) 保全人員每天抄錄水表，漏水即時通報

年度節水評比統計 Annual Water Conservation Statistics

單位：度

| 年度 | 96年年度 4月至9月 | 99年年度 4月至9月 | 100年年度 4月至9月 | 備註欄 |
|---------|----------------|----------------|-----------------|-----------------|
| 扇形車庫 | 2.724 | 3.070 | 1866 | 用水及漏水控管請守衛每日抄錶 |
| 行車寄宿舍 | 997 | 0 | 0 | 工作場所採集中管理省水 |
| D棟檢修大樓 | 1.478 | 2808 | 1.134 | 自來水流入再生水裡考克誤置 |
| A棟行政大樓 | 4.067 | 2095 | 2.078 | 生活用水回收再生澆灌沖廁喜洗車 |
| B棟舊運轉大樓 | 903 | 22 | 0 | 工作場所採集中管理省水 |
| 小計 | 10.169 | 7.995 | 5.078 | 總節水率- 43.27 |

- a. Increased cycling capacity of electronic message displays at level crossings for safety
- b. Increased sustainability and improved government carbon reduction by using environmentally friendly LED indicators
- c. Implemented the "Level Crossing Remote Control System" allowing for instant modification of the electronic messaging displays. They were made available to local government and civic organizations to publicize activities. This displayed TRA's commitment to customer service and interactions with local stakeholders.



■ National centennial award for water conservation (state-owned enterprises category)

The primary water conservation initiatives included:

- a. Inspection and repair of underground pipes, equipment pipes, toilet pipes and water faucet pipes.
- b. Use of water conservation devices: dual-stage toilet flushing systems, spraying water faucets (bathroom sinks) and sensor-based urinal flushing systems.
- c. Use of excess water from daily activities and reverse osmosis drinking fountains to water plants, clean bathrooms and wash trains.
- d. Promotion of water conservation education through posters and educational tips for everyday life.
- e. Daily records of water meter readings taken by security personnel for instant notification of water leakages.

Annual Water Conservation Statistics

Unit: m3

| Location | Year | Apr.- Sep.2007 | Apr.- Sep.2010 | Apr.- Sep.2011 | Remarks |
|------------------------------|------|-------------------|-------------------|-------------------|---|
| Roundhouse | | 2.724 | 3.070 | 1866 | Records of daily water usage and leakage by the guard |
| Train Clerk Lodging | | 997 | 0 | 0 | Executing centralized Water conservation management in the working area |
| Maintenance Building D | | 1.478 | 2808 | 1.134 | Supply pipe cock valve be connected erroneously to the recycle water pipe |
| Administration Building A | | 4.067 | 2095 | 2.078 | Recycle water from daily activities to clean bathrooms and wash trains. |
| Old Transshipment Building B | | 903 | 22 | 0 | Executing centralized Water conservation management in the working area |
| 小計 | | 10.169 | 7.995 | 5.078 | Total Water Conservation Ratios |

■ TRA centennial innovation and R&D award

On August 8, 2011, TRA convened the "2011 Innovation and R&D Award Review Meeting" to decide on the winners of first, second and third place awards. The first place "superb" award went to Zhengwei Xiao and Donggeng Wu. The second place "excellence" award went to Qingsheng Zhang and Weitian Zhang. The third place "selected" award went to Xiuyun Luo, Qiuyu Zhong and Weitian Zhang. A list of prize winning colleagues was published in the 216th issue of the TRA bureau report on August 26. Director General Frank Fan personally presented the awards and encouraged winners to continue their excellent efforts.

The Director General was highly enthusiastic in his praise for the innovative colleagues who received the award. He said, "TRA colleagues continue to come up with new projects in innovation and R&D. As of the end of July (2011), we received 159 project submissions. In addition, there were 19 submissions to the MOTC Centennial Award for Innovative Transportation Projects. This shows that TRA employees are not passive, do not back down from difficult challenges in constantly changing environments. We are passionate and aggressive, always seeking to breakdown barriers. TRA continues to be competitive and rise to challenges to increase revenue and gain customer satisfaction". He encouraged colleagues to continue to enthusiastically submit projects to help TRA find new operational concepts and move forward with ingenuity.

■ Innovative products- ten major souvenirs from TRA

To celebrate public holidays, TRA issued "Ten Major TRA Souvenirs". The souvenirs were designed to meet market demands and match social trends. The souvenirs included: "Peace



■ 本局100年創新及研發獎獲獎提案頒獎

本局於100年8月8日召開「100年度創新及研發獎案件審查會議」決議，獲獎提案為優等1案、佳作2案及入選3案，計6案，分別由蕭正偉、吳東庚等2員榮獲「優等」（記大功1次並頒發獎金5,000元），張慶生、張維田等2員榮獲「佳作」（記功2次並頒發獎金3,000元），羅秀韻、邱裕中、張維田等3員榮獲「入選」（記功1次並頒發獎金2,000元），並於100年8月26日第216次局務會報中表揚獲獎同仁，由范局長植谷親自頒發獎金，以資鼓勵。

局長相當肯定同仁創新提案獲獎之表現，致詞嘉勉時提及：「本局同仁不斷提出創新及研發案，至本100年7月底已達159案；另本局參與交通部100年度創新獎提案制度共19案，這說明臺鐵人不是被動的，任憑環境變遷與競爭力惡化，我們是積極、主動，隨時尋求突破現有環境艱困之處，使臺鐵能不斷提升競爭力、增益本局營收及獲得顧客優良服務評價。」，也期許同仁每年踴躍積極提案，使本局在舊的模式中尋找新的經營思維，以創新的步履向前邁進。

■ 創新商品—臺鐵十大伴手禮

配合節慶、市場需求及社會潮流以創新思維依序推出「臺鐵十大伴手禮」。例如：「幸福平安筵」、「媽媽的好味道焗燒風味餐」、「珍饈金情筆記本」、「CK101、CK124重聯運轉帽子」、「原木鉛筆盒」、「愛情文鎖」、「愛情真鑽對鍊」、「臺鐵純鍍男女手鍊」、「DT668精緻領帶夾」、「DT668玻璃工藝品」、「太陽能燈座」、「DT668悠遊卡」等，頗受民眾喜好，選購者眾。

■ 環保綠建築車站及設施

因應全球暖化及高油價時代來臨，鐵路在電車零排放、共乘省能源等條件下為綠色交通重要一環。而臺鐵更在推動公共運輸及節能減碳不遺餘力，積極辦理車站綠建築及建置綠色能源等作業。在車站綠建築設計上、融合永續、科技、環保等概念，將綠色科技概念表現在車站建築各層面，在室外採用透水性鋪面，設滯洪沉砂池並結合景觀規劃以達基地保水；車站採自然通風，並增強遮陽設計，減少建築耗能；設備採用節水標章，污水及垃圾集中處理，來改善水資源及污水垃圾。

在建置綠色能源作業上，在鐵路辦理各項改建計劃內，依「振興經濟擴大公共建設投資計畫」綠色能源辦理原則，提撥預算百分之六經費做綠色能源改善，經評估以太陽光電發電系統及LED燈具等二項為主要辦理對象，車站屋頂可設置太陽光電系統，除提供車站部分用電外，亦在造型景觀上融合設計；而車站室內外規劃為LED燈具示範場所，除節省室內燈具、景觀照明及避難指示燈等耗電外，更可加深民眾對LED燈具節能認知。

在本局積極推動下，縱貫線之楊梅站、湖口站、大林站及民雄站，沙崙線之沙崙站、中洲站及長榮大學站，六家線之六家站、竹中站、新莊（竹科）站及千甲（世博）站等11個車站皆取得綠建築標章，而後續辦理新建車站，亦全面要求取得綠建築資格。臺鐵在近年在推動車站綠建築及建置綠色能源上不遺餘力，成效輝煌。



100年12月27日於經濟部水利署接受表揚
Receiving praise from the Ministry of Economic Affairs Water Resources Agency on December 27, 2011



逆滲透及回收處設施
Reverse osmosis fountain and recycling station



回收水澆灌花木
Recycled water for plant watering

and Prosperity Bookmarks", "Mom's Cooking Style Clay Pot Meals", "Treasured Golden Feelings Notebooks", "CK101 and CK124 Connected Cars Hats", "Original Pencil Boxes", "Loving Paperweights", "Loving Real Diamond Necklaces", "TRA Real Germanium His and Hers Bracelets", "DT668 Stylish Tie Clips", "DT668 Glass Sculptures", "Solar-powered Lamp Stands", and "DT668 Easycards".

■ Eco-friendly rail stations and facilities

We live in an era of global warming and high gas prices. TRA, is an important component of environmentally friendly transportation. TRA spared no effort to advance the causes of public transportation, energy conservation and carbon reduction, and stations feature green building structures and green energy sources. In its green buildings, TRA focused on durable, technologically advanced and environmentally friendly structures. On the outside of buildings, TRA used permeable pavement and sunken sediment basins to achieve the purposes of both landscape planning and water retention. In the buildings, TRA used natural ventilation and shaded areas designed to decrease the energy consumption of buildings. To conserve water and resources, TRA put water conservation stickers on its water equipment and provided recycling areas for both waste water and garbage.

In the area of green energy, TRA followed the green energy provisions of the "Economic Revitalization Policy Project to Expand Investment in Public Works" in its plans to modify or renovate structures. TRA set aside 6% of its budget for green energy modifications. After assessment, TRA decided to primarily focus its efforts on solar panels and LED lighting systems. The roofs of stations were equipped with solar panels for powering the station and fit visually with the overall design of the building. LED lighting was used both inside and outside of stations. Using LED lighting for indoor lighting, landscape lighting and emergency lighting not only reduced power consumption but also helped educate the public on the energy-saving benefits of LED lighting.

Under the vigorous efforts of TRA, 11 stations have received green building certifications including: Yangmei, Hukou, Dalin Minxiong ; Shalun, Zhongzhou Chang Jung Christian University stations ; Liujia, Zhuzhong, Xinzhuang (Zhuke) stations on the Liujia line; and Qianjia (World Expo) station. TRA plans for every station it builds to receive a green building certification. In recent years, TRA has done its utmost to achieve excellent results in its green buildings and green energy initiatives.



提升服務 Improving Service

提升安全 Increasing Safety

提升準確 Increasing Punctuality

平溪線 Pingxi line



04

提升服務、安全與準確

Raising the Bar on Rail Service, Safety and Punctuality





提升服務

(一) 改善服務態度

- 1、成立感動服務變革委員會。
- 2、辦理「第一線服務人員講習訓練」：100年共計辦理三期134人參訓。
- 3、推動神秘客制度與旅客服務競賽：於不同時段採無預警方式考核，並勸導改善。
- 4、每月不定期實施電話禮貌抽測。

(二) 建構親和友善的旅運設施

■ 辦理多卡通電子票證乘車業務

100年全線共計49站提供電子票證服務，每日使用人數約16萬人次，大幅提升旅客乘車之便利性，並節省購票及進、出站時間

■ 推動票務自動化

- (1) 建置自動閘門：100年共完成基隆－屏東間（含六家線及沙崙線）61站334道閘門。
- (2) 汰換車上掌上型補票系統設備：增加查驗電子票證及內建時刻表供乘務人員查詢，100年6月底全部建置完成。
- (3) 完成電腦售票終端機（TPT）背磁案：100年共計完成175站381台，並改發售背磁式車票，納入自動驗票系統，提升售票及進出站速度。
- (4) 購置自動售票機：100年全線共計141站配置487台自動售票機，其中105站434台已完成背磁化。

■ 建置免費無線上網（WiFi）服務

為配合行政院研究發展考核委員會辦理「中央行政機關室內公共區提供免費無線上網」，在本局173個車站站內設立WiFi熱點（服務名稱為「iTaiwan」），提供旅客免費無線上網服務。

■ 推動優質公廁計畫

全力爭取各縣市政府環保局列管公廁評鑑之優質公廁標章，建立不髒、不臭、不濕之如廁環境。100年各車站經各縣市政府環保局列管公廁評鑑，計特優80站、優等76站及普通15站。

■ 改善無障礙鐵路環境

- (1) 改善車站基本無障礙設施（嚮導指標、出入口、身障停車位、無障礙廁所等）。
- (2) 提升車站無障礙設施功能，逐站增設升降設備，截至100年底已設置37站。
- (3) 改善車站月台與車廂高度差距，縮短旅客上下車時間，第一階段（月台提高至92公分），除臺北、板橋、萬華外，皆於100年底完成。

(三) 提升旅客滿意度

■ 提升身心障礙旅客乘車服務品質

自99年7月20日起及100年5月26日起，分別啟用輪椅座位專線及簡訊服務電話，以更貼心的方式服務輪椅及瘡啞旅客。

■ 推出會員服務系統

100年3月30日起實行會員制，並應用剩餘可售座位，進行撮合，滿足旅客訂票需求，以提升滿意度，同時作為列車加掛、加開規劃之參考，截至100年12月底共計有會員59,055人，委託訂位媒合成功率佔實際媒合45.18%。

■ 試辦推行列車博愛座

因應老年化社會來臨並兼顧身心障礙者之乘車生活便利性，自100年7月1日起擇訂南迴線四列車（共64座位）推行列車博愛座。

■ 開放超商取票服務

100年12月22日開放中華郵政及統一、全家、萊爾富及OK超商，提供取票服務，提供民眾取票便利性，節省旅客購票時間與成本。

■ 提供24小時客服中心諮詢服務

成立後由16線增加為37線，100年3月30日起服務項目增加會員制查詢服務，5月26日起增加瘡啞人士簡訊服務。

1.Improving Customer Service Attitudes

- A. Formed the "Touching Service" reform committee
- B. Hosted three "Front Line Hospitality Staff Training Workshops" in 2011 for a total of 134 participants
- C. Implemented the "mystery passenger" program and the customer service competition. Unannounced assessments were made at various times to promote better customer service in TRA employees.
- D. Made monthly unscheduled assessments on telephone customer service representatives on a monthly basis

2.Creating Intimate and Friendly Transportation Facilities

Implemented the E-ticket multipass business

a total of 49 stations provided E-ticket services with a daily usage rate of 160,000 passengers in 2011. TRA significantly increased the convenience of TRA travel and reduced times for ticket purchasing and station entry and exit.

Continued automation of ticketing services

- a. Built automated turnstiles: 334 automated turnstiles were completed in 61 stations between Keelung and Pingtung (including Liujia and Shalun lines) as of 2011.
- b. Replaced onboard handheld replacement ticketing equipment: added E-ticket compatibility and built-in schedule searchability. As of June 2011, all old handheld equipment was replaced.
- c. Completed computerized ticket purchase terminal (TPT) magnetization project: a total of 381 terminals at 175 stations were finished in 2011. Integrated magnetic tickets into the automated ticket inspection system to decrease times for ticket purchasing and station entry and exit.
- d. Purchased automated ticket vending machines : There were a total of 487 machines at 141 stations as of 2011. A total of 434 machines at 105 stations have been made compatible with magnetic tickets.

Implemented free WiFi services

In accordance with the "Central Administrative Organization Offering Free Wireless in Indoor Public Areas" initiative of the Research, Development and Evaluation Commission of the Executive Yuan, TRA created "iTaiwan," a free wireless service in the interiors of 173 TRA stations.

Promoted plan for high-quality public bathrooms

In an effort to receive "high-quality public bathroom" certifications from the environmental protection departments of each county government, TRA built public bathrooms that were dirty, not foul smelling and not wet. In 2011, TRA had a total of 80 stations with "superb quality" bathrooms, 76 stations with "high quality" bathrooms and 15 stations with "ordinary" bathrooms.

Improved TRA's handicapped access capabilities

- a. Improved basic handicapped facilities (guidance signs, entrances and exits, handicapped parking spaces and handicapped restrooms).
- b. Improved the function of handicapped facilities, equipped stations with handicapped chair lifts for a total of 37 stations equipped with lifts in 2011.
- c. Adjusted platform and train car heights to bring them closer and decrease passenger boarding and alighting times. In the first phase of this project, all stations had platforms raised to 92 centimeters with exception to Taipei, Banqiao and Wanhua stations by the end of 2011.

3.Increasing Customer Satisfaction

Raised service quality for mentally or physically disadvantaged passengers

TRA began a special telephone reservation line for wheelchair seats (July 20, 2010) and a special phone line with text message service (May 26, 2011) to improve TRA service for passengers in wheelchairs and dumb passengers.

Launched membership system

On March 30, 2011, TRA launched membership system. The system meets customer needs by matching customers with remaining unsold seats. It allows TRA to collect information to determine when it needs to operate extra trains or extra train cars. As of December 2011, there were 59,055 members in the system. The ticket matching system had a 45.18% real success rate.



(四) 改善列車時刻查詢系統

■ 行動查詢 (列車即時資訊)

100年1月2日配合沙崙支線啟用開放南部區間列車即時資訊查詢，100年7月15日開放全區間查詢，同時啟用英文版查詢，平均每日約4萬3,568筆點閱次數。

■ 臺鐵高鐵轉乘資訊

配合100年7月15日列車時刻查詢系統改版，開放臺鐵高鐵轉乘資訊供旅客查詢使用，平均每日約2,523瀏覽次數。

■ 介接列車時刻查詢與訂票資料

為方便旅客查詢及訂票，配合100年7月15日列車時刻查詢系統改版，開放相關功能供旅客使用，以減少旅客查詢與訂票步驟。

提升安全

■ 預防事故發生

建置本局行車事故資料庫－「行車保安資訊系統」，蒐集自81年起迄今之事故資料約20,000筆，分門別類，統計與分析，供本局各相關單位據以參考擬定防範對策。

■ 確保行車安全

近年引進風險管理觀念，並參考「行車保安資訊系統」資料，擬定風險管理預防措施，以防止類似事故之再發生。

■ 公路用路人守法觀念不足

平交道事故仍無法完全消除，本局為加強防護平交道及路線安全，持續推動工程 (Engineering)、教育 (宣導, Education) 及執法 (Enforcement) 等三E政策，近年來平交道事故已有下降趨勢。

| 年度 Year | 類別 Type | 件數 Case | 死亡數 Death | 受傷數 Injure |
|---------|---------|---------|--------------------------------------|------------|
| 98年 | | 43 | 12 | 14 |
| 99年 | | 41 | 18 (6人為自殺) (6 people commit suicide) | 12 |
| 100年 | | 26 | 14 | 3 |

提升準確

100年旅客列車準點率94.68%，較99年 (92.81%) 提升1.87%，致力於各項準點率改善措施，以提升列車準點率及旅客滿意度。

| 車種 Train 期別 Time | 旅客列車 Passenger Trains | | | | | | |
|---------------------|-----------------------|------------------------------|-----------------------------|---------------------------------|----------------------|--------------------|-----------------------|
| | 合計 All | 自強號 Tzu-Chiang Express | 莒光號 Chu-kwang Express | 復興號 Fu-hsing Semi Express | 區間快 Local Express | 區間車 Local Train | 普通車 Ordinary Train |
| 100年2011 (%) | 94.68 | 89.44 | 85.71 | 89.25 | 95.36 | 96.16 | 99.95 |
| 99年2010 (%) | 92.81 | 85.45 | 82.68 | 77.45 | 92.82 | 95 | 99.75 |
| 比較 Comparison (%) | 1.87 | 3.99 | 3.03 | 11.8 | 2.54 | 1.16 | 0.20 |

100年與99年「影響列車延誤事故概況分析」 Analysis of Affected Train Delays in the Accident in 2010 and 2011

| 影響分析 Types Influence Analysis | 事故總類 Accident | 動力車故障 Power Car Malfunctions | 平交道、死傷事故 Level Crossing, Injury or Death Accidents | CTC號誌故障 CTC Signal Malfunctions | ATP故障 ATP Malfunctions | 電車縣故障 Breakdown of Electric Cars | 其他事故 Other Indications | 合計 All |
|----------------------------------|------------------------|------------------------------------|--|---------------------------------------|---------------------------|--|---------------------------|---------|
| 發生次數 Number of Incidents | 100年2011 | 306 | 111 | 625 | 1,950 | 24 | 79 | 3,095 |
| | 99年2010 | 343 | 126 | 933 | 1,614 | 31 | 85 | 3,132 |
| | 比較 Comparison (百分比) | -37 -10.8% | -15 -11.9% | -308 -33% | 336 20.8% | -7 -22.6% | -6 -7.1% | -37 |
| 影響延誤時分 (分) | 100年2011 | 16,200 | 21,377 | 22,811 | 9,762 | 5,039 | 5,582 | 80,771 |
| | 99年2010 | 26,458 | 28,924 | 25,281 | 9,041 | 4,086 | 11,691 | 105,481 |
| | 比較 Comparison (百分比) | -10258 -38.8% | -7547 -26.1% | -2470 -9.8% | 721 8% | 953 23.3% | -6109 -52.3% | -24710 |

▮ Pilot implementation of priority seat service

To address the needs of seniors and mentally and physically disadvantaged passengers, TRA selected 4 trains on the south-link line for priority seat implementation (a total of 64 seats).

▮ Launched convenience store ticket sales service

On December 22, 2011 TRA began offering ticket sale services at Chunghwa Post Offices and Uni-President, Family Mart, Hi-Life and OK Mart stores. TRA passengers will benefit from greater convenience and decreased time and cost in ticket purchases.

▮ Provided 24-hour customer service hotlines

TRA increased the number of hotlines from 16 (at inception) to 37 lines. On March 30, 2011, TRA began offering reservation inquiry services for members. On May 26, TRA began offering text messaging phone lines for mute passengers.

4.Improving Train Schedule Inquiry System

▮ Train operational inquiry (current train status)

On January 2, 2011, in conjunction with the opening of the Shalun line, TRA launched its current train status inquiry system in Southern Taiwan. On July 15, 2011, TRA extended the service to the rest of Taiwan and began offering the service in English. On average, there are 43,568 new visits to the system per day.



▮ TRA and THSR transfer information

In conjunction with the launch of the train status inquiry system on July 15, 2011, TRA began offering information on TRA and THSR transfers. On average, the system is visited 2,523 times a day.

▮ Link between schedule inquiry and reservation system

On July 15, 2011, for the convenience of passengers, TRA began offering a function to link users doing a schedule inquiry to the reservation system. This decreases the number of steps required between inquiry and making a reservation.

Increasing Safety

▮ TRA created the "Train Safety Information System"

a database of accidents to more effectively prevent accidents. A total of 20,000 incidents have been recorded since the database was started in 1992. The incidents are divided into categories for statistical analysis, allowing the relevant TRA divisions to better develop prevention strategies for accidents.

▮ introduced risk management concepts for better train safety

In recent years, TRA examined the "Train Safety Information Database" and undertook preventative measures to reduce the chances of accidents reoccurring.

▮ Users of roads do not necessarily obey traffic laws

It is difficult to completely avoid accidents at level crossings. TRA continued to take a Three E's approach of Engineering, Education, and Enforcement to increase level crossing safety. There has been a trend of decline in level crossing accidents in recent years.

Increasing Punctuality

TRA had a 94.68% punctuality rate for passenger trains in 2011. This was a 1.87% increase from the 2010 rate of 92.81%. TRA strives to implement reformative measures in every area to improve its punctuality and passenger satisfaction.



05

100年度經營績效

2011 Operating Report

營運暨損益分析

Profit and Loss Analysis

客貨運業務

Passenger and Freight Operations

附屬事業經營及資產活化利用效益

Results from Subsidiary Businesses
and Active Utilization of Assets





營運暨損益分析 Profit and Loss Analysis

100與99年損益比較表

單位：萬元 Unit：NT\$10,000

| 項目Item | 100年 2001 | 99年 2010 | 比較 Comparison |
|--------------------------------|------------|------------|---------------|
| 總收入 Total revenue | 2,232,554 | 2,136,099 | 4.5% |
| 客運收入 Passenger revenue | 1,557,684 | 1,462,618 | 6.5% |
| 貨運收入 Freight revenue | 98,505 | 99,733 | -1.2% |
| 其他營業收入 Other operating revenue | 418,959 | 388,595 | 7.8% |
| 營業外收入 Non-operating revenue | 157,406 | 185,152 | -15.0% |
| 總支出 Total expenditure | 3,256,078 | 3,156,586 | 3.2% |
| 營業成本 Operating costs | 2,595,026 | 2,527,862 | 2.7% |
| 營業費用 Operating expense | 96,139 | 89,602 | 7.3% |
| 營業外費用 Non-operating expense | 564,914 | 539,121 | 4.8% |
| 損益 Profits and Losses | -1,023,525 | -1,020,487 | 增虧0.3% |

*本表99年(2010)為審定決算數，100年(2011)為初編決算數。

Remarks: 2010 is approved final accounts, while 2011 is preliminary final accounts.

客貨運業務

(一) 客貨運經營實績 Operation Status：

| 年度Year | 客運Passenger Traffic | | | 貨運Freight Traffic | | |
|----------------------|----------------------------------|--|--------------------------------|-------------------|--------------------------------|--------------------------------|
| | 人數(人) Number of Passengers | 延人公里 (延人) Passenger- Kilometers | 收入(元) Revenue(NT dollar) | 噸數(噸) Tonnages | 延噸公里 (延噸) Ton-Kilometers | 收入(元) Revenue(NT dollar) |
| 100年2011 | 205,829,334 | 9,719,605,209 | 15,576,842,099 | 10,661,020 | 847,707,060 | 985,049,552 |
| 99年2010 | 189,762,500 | 8,998,411,217 | 14,626,183,844 | 10,426,211 | 866,301,039 | 997,333,081 |
| 增減% 2011 vs. 2010 | 8.47% | 8.01% | 6.50% | 2.25% | -2.15% | -1.23% |

分析：

■ 客運業務

- (1) 100年度連續假期較多，使旅客返鄉及出遊意願大增。
- (2) 沙崙支線及六家支線通車營運，串連兩鐵運輸路廊，加上電子票證多卡通使用區間逐步擴大，皆有效提升整體軌道運輸系統服務品質，吸引各種旅次需求之旅客搭乘，發揮路網整合之經濟成效。
- (3) 陸客來臺觀光持續成長，以及蘇花公路遭受連續風災影響路況，陸客團由花蓮至宜蘭地區之往返改以搭乘火車方式遊覽。
- (4) 配合各地方季節性活動，機動加開加掛列車，並以異業結盟、團體媒合方式，提高搭乘率，加強列車運用。

■ 貨運業務

- (1) 林口線沿線居民抗爭，致臺電燃煤運送由去(99)年11月起停駛夜間專列去回計兩列次，平均每月營收約減少680萬元。
- (2) 東砂北運因蘭陽溪疏濬出砂石料，自100年6月由公路運送，本局市場受排擠，每日運送量約減少3~4成。
- (3) 「蘇花改計畫」使公路運能移轉鐵路(中鋼案)，於100年7月起啟運，逐步增加運量，致噸數較去年小幅成長。



Passenger and Freight Operations Business

Analysis :

■ Passenger transport business

- a. There were more consecutive holidays in 2011 and customers had greater need to travel home and on vacation.
- b. TRA elevated quality of service by opening Shalun and Liujia lines, creating the connecting between rail services and gradually increasing the scope of E-ticket multipass integration. TRA attracted passengers and helped create greater economic results.
- c. With the increase of tourists from Mainland China and the decrease in accessibility of the Suhua Highway due to continuous typhoons, tour groups from Mainland China have switched to rail travel for round-trip journeys between Hualien and Yilan.
- d. TRA added train cars and ran additional trains to meet the varying demands of seasonal activities. TRA increased passenger volume and strengthened effectiveness through cross-industry alliances and group matching.

■ Freight transport business

- a. In response to protests from residents along the Linkou line, as of November, 2010, TRA stopped running coal transport night freight trains for Taipower. A total of 2 trains were stopped . Average monthly revenue decreased by approximately NT\$6.8 million
- b. TRA's transport business for gravel from the east to the north suffered a drop of approximately 30 to 40% in daily transport rates. As of June 2011, sand and gravel dredged from Lanyang River was being transported by highway instead of rail.
- c. The "Suhua Highway Reform Plan" (Zhonggang Plan) shifted transportation volume from the highway to TRA. Starting from July 2011, transportation volume has gradually increased when compared with last year.



改善各項票務措施

- (1) 調整配座比例：臺北—臺東間配座數由65%提升至75%，高雄—臺東間由50%提升至75%。
- (2) 加強查察黃牛票：統計自97年12月起至100年12月止，查獲移送之「淨網專案」案件總計為153件174人，影響張數約3萬餘張，金額約新臺幣800萬餘元。
- (3) 去回票分段訂票亦可享9折優惠：修改票務系統程式並自100年10月25日起實施。

附屬事業經營及資產活化利用效益

(一) 餐旅服務事業

100年度總收入7億8,700萬餘元，總支出為4億5,600萬餘元，盈餘為3億3,100萬餘元，較99年度盈餘3億4,700萬餘元，盈餘減少1,600萬餘元。分析原因係減少合作經營，因全省27站35個販賣部經營業者於100年2月28日起提前解約，每月減收647萬元，100年計減收6,400萬餘元，扣除此因素，餐旅服務本業盈餘較上年同期增加4,800萬餘元。

1、積極拓展鐵路便當績效卓著：

100年度臺鐵便當銷售數量共計566萬4,069個，較99年同期銷售數量496萬5,304個，增加69萬8,765個，成長比率約14.07%；營收3億8,803萬餘元，較99年同期營收3億2,801萬餘元，增加6,001萬餘元，增加比率約18.3%。



2、配合節慶推出多款紀念便當盒組：

配合100年春節活動，推出「辛卯年黑鼻列車長」不銹鋼紀念便當盒及提袋8,020份；配合100年鐵路節慶祝活動，特別規劃推出「臺鐵薪火相傳·十二同堂系列—CK124」紀念不銹鋼便當盒及提袋1萬620份；配合內灣支線復駛，推出「臺鐵薪火相傳·十二同堂系列—DT668」紀念不銹鋼便當盒及提袋1萬500份。

3、積極開發鐵路商品之商標授權業務：

為維護本局商標權益，本局已獲經濟部智慧財產局核准註冊商標共計81件。為提升鐵路商品多樣化與品牌附加價值並發展鐵路文創業務，100年度授權本局商標供廠商合作開發、銷售之產品共計106項，授權金收入計441萬餘元，較99年營收172萬餘元，增加269萬餘元，增加比率約156.4%。



4、推展文化創意產業，開發具本局品牌價值之鐵路商品：

100年度為配合節慶、市場需求及社會潮流以創新思維依序推出「臺鐵十大伴手禮」。100年度鐵路商品銷售(含車勤部及各餐廳)總額全年共計4,177萬餘元，較99年營收1,943萬餘元，增加2,234萬餘元，增加比率約114.97%。

5、招請專業廠商進駐車站，經營商業賣店，提升

車站行旅服務功能：採合作經營方式委託統一超商、萊爾富、麥當勞等專業廠商經營全路各大車站販賣部，100年度收益共計1億9,184萬餘元，較99年營收2億4,169萬餘元，減少4,985萬餘元，減少比率約20.63%。

6、充分開發各車站商業空間增裕營收：

辦理各車站候車室部分場地標租民間業者經營各類商店業務，100年度租金收入共計8,124萬餘元，較99年營收7,951萬餘元，增加173萬餘元，增加比率約2.18%。

| Ticketing reform measures

- a. Adjusted seating ratios: between Taipei and Taitung, the seating percentages increased from 65 to 75%; between Kaohsiung and Taitung, seating percentages increased from 50 to 75%.
- b. Increased investigations into ticket scalping: from December 2008 to December 2011, there were found in investigations a total of 153 incidents of ticket scalping involving 174 people. Affected tickets were over 30,000 with a monetary value of over NT\$8 million.
- c. Adjusted system to allow 10% discount for round-trip tickets purchased separately. The ticketing system was modified on October 25, 2011.

Results from Subsidiary Businesses and Active Utilization of Assets

1. Catering Services Business

The 2011 gross revenue for TRA's catering service business was over NT\$787.00 million. Expenditures were over NT\$456.00 million with total profit of NT\$331.00 million. Compared with 2010 profit of NT\$347.00 million, this was a decrease of NT\$16.00 million. This was due to a reduction in businesses partnered with TRA. Vendors from 35 sales centers in 27 train stations prematurely terminated their contracts on February 28, 2011. Monthly revenue decreased by NT\$6.47 million and total profit for 2011 decreased by more than NT\$64.00 million. If the effects of this event are removed, the catering services business actually had an increase in revenue of NT\$48.00 million from 2010.

- A. Strong performance in expansion of boxed lunches: In 2011, TRA sold a total of 5,664,069 boxed lunch sets, a 14.07% increase of 698,765 sets from 2010's sales of 4,965,305. Gross revenue totaled NT\$388.03 million, an increase of 18.3% (NT\$60.01 million) from 2010's NT\$328.01 million.
- B. Introduction of commemorative boxed lunch sets in connection with public holidays: For the 2011 Chinese New Year festivities, TRA introduced 8,020 units of the "Xinmao Year Black-nosed Train Conductor" stainless steel commemorative lunchbox and bag; for the ROC 100th anniversary TRA celebration, TRA produced 16,200 units of the "TRA passes the torch - 12 cars under one roof - CK124" stainless steel commemorative lunchbox and bag; for the renovation of Neiwan line, TRA produced 15,000 units of the "TRA passes the torch - 12 cars under one roof - DT668" stainless steel commemorative lunchbox and bag.
- C. Strong promotion of TRA brand and logo: To protect intellectual property rights, TRA has registered 81 items for trademark protection with the Intellectual Property Office of the Ministry of Economic Affairs. To increase the variety of TRA merchandise and the added value from branding and to develop a creative TRA culture, TRA began to license its brand to partner companies in 2011. A total of 106 different products were sold. Profits from licensing fees totaled over NT\$4.41 million, an increase of 156.4% (NT\$2.69 million) from 2010's profits of over NT\$1.72 million.
- D. Developing TRA's creativity and culture, promoting TRA brand and products: To celebrate public holidays, TRA issued an innovative "Ten Major TRA Souvenirs." The souvenirs were designed to meet market demands and match social trends. Sales for 2011 TRA railway merchandise (including onboard train service and restaurants) totaled over NT\$41.77 million, an increase of 114.97% (NT\$22.34 million) from 2010's NT\$19.43 million.
- E. Soliciting professional vendors to operate in stations to enhance station services: TRA partnered with Uni-President, Hi-life and McDonalds to operate their chain stores in all of the major TRA stations. The net profit from partnerships was a total of over NT\$191.84 million, a decrease of 20.63% (NT\$49.85 million) from 2010's NT\$241.69 million.
- F. Fully developing commercial space in stations to increase revenue: TRA leased space in station waiting areas to the highest bidding private businesses to operate various commercial shops. Total revenue from these rentals in 2011 was over NT\$81.24 million, a 2.18% (NT\$1.73 million) increase from 2010's NT\$79.51 million.
- G. Widespread installation of automated machines : TRA allowed vendors to use spaces inside stations (including platforms) to install ATMs, beverage vending machines, water coolers, information terminals, photo booths, newspaper vending machines and other types of machines. Rental revenue from this source totaled over NT\$11.08 million in 2011.
- H. Establishment of travel service counters : To develop the travel and tourism industry, TRA continued its partnership with travel agencies to set up travel service counters at 7 locations in 6 stations (Taipei, Banqiao, Taichung, Chiayi, Kaohsiung and Hualien). Rental revenue from this source totaled over NT\$7.49 million in 2011.



- 7、廣設無人商店方便旅客：規劃車站零星空間（包括月臺）招商設置自動櫃員機、飲料機、飲用水機、資訊查詢機、快照機及報紙機等各類機臺，100年度租金收入共計1,108萬餘元。
- 8、設置旅遊服務櫃檯提供多樣化旅遊服務：為發展觀光旅遊業務，持續與旅行社合作於臺北、板橋、臺中、嘉義、高雄、花蓮等6站7個場所設置旅遊服務櫃檯，以提供旅客多樣化旅遊服務，100年度租金收入計749萬餘元。
- 9、結合地方政府設置各種資訊服務臺以增加車站服務面：100年度辦理全路各主要車站出租予各縣市政府設置旅遊服務中心、旅遊資訊服務站（或服務臺）、公共資訊站及就業服務臺等，全年租金收入計89萬餘元，較99年營收68萬餘元，增加21萬餘元，增加比率約30.88%。
- 10、推動鐵道旅遊深度與廣度，開辦郵輪式列車地接業務：為配合本局開行之2天1夜（或以上）郵輪式列車，招商請旅行社合作辦理地接業務，以提供旅客參與鐵道旅行之深度與廣度，100年度營收397萬1,574元（含車票收入232萬3,490元；便當收入45萬2,215元；車銷商品收入13萬3,369元；權利金收入106萬2,500元）。

（二）資產活化利用

■ 車站商務業務

- （1）便利商店與餐飲服務：提升車站行旅服務功能採合作經營方式，委託專業廠商進駐經營賣店，如統一超商、萊爾富、麥當勞等專業廠商經營全路各大車站販賣部，100年度收益共計1億9,184萬餘元，較99年營收2億4,169萬餘元，減少4,985萬餘元，減少比率約20.63%。
- （2）特色商店業務：充分開發各車站商業空間，標租民間業者經營地方特色商品或伴手禮等各業務，100年度租金收入共計8,124萬餘元，較99年營收7,951萬餘元，增加173萬餘元，增加比率約2.18%。
- （3）廣告業務：在不妨礙車站秩序與行車安全及破壞建物結構範圍內，妥善利用空間規劃燈箱、多媒體及海報等廣告標的的出租。100年度廣告租金累計收入為5,470萬元，比較99年同期5,561萬元，減少91萬元。
- （4）拍攝場地出租業務：鑒於政府及民間對影劇行銷效果日漸重視，為統合本局配合政府有關「中央機關推動電影攝製協助工作」之辦理單位、制定費率標準、簡化辦理程序，俾拍攝場地設備出租作業有所依循，同時藉以活化相關資產之運用，業於99年2月3日訂頒本局「拍攝場地設備出租作業有點」，據以執行。100年度共辦理70案，租金收入113萬餘元。

■ 場站房地出租運用業務

- （1）停車場業務：改善車站周邊交通秩序暨服務商旅，本局規劃於車站區域土地設置停車場。截至100年底，全線共有103處停車場，累計停車場租金收入為2億2,898萬元，比較99年同期收入2億1,830萬元，增加1,068萬元。
- （2）房地業務：利用鐵路沿線閒置空地、站房、房舍、會議室及禮堂等，在不妨礙原有使用目的原則下規劃辦理出租，並提供行動電話基地台、光纖管等通訊服務空間。100年度營收3億9,078萬元，較99年度同期3億7,531萬元，增加1,547萬元。

■ 土地開發經營業務

■ 促參建設業務

ROT（Rehabilitate-Operate-Transfer，租用更新-營運-移轉）建設

- （1）臺北車站大樓G+2、G+1、U-1層民間參與整建營運案，95年12月簽約，特許權利金6,000萬元，96年10月底G+2層開幕營運，每年經營（定額）權利金收入5,200萬餘元；G+1、U-1依合約擴充機制於100年11月11日正式開幕營運，每年經營（定額）權利金可增益1,200萬餘元；營運（抽成）權利金1,206萬餘元。
- （2）板橋車站大樓U-1員工餐廳、G+2、G+24及G+25層商場民間參與整建營運案，98年4月1日簽約，特許權利金2,500萬元，每年經營（定額）權利金收入3,456萬餘元，營運（抽成）權利金2,842萬餘元。

- I. Working with local governments to provide various information service counters : TRA leased space in every major TRA station to city and county governments to set up , travel information service stations (or service counters), public information stations and employment service counters. Rental revenue from this source totaled over NT\$890,000, an increase of 30.88% (NT\$210,000) from 2010's NT\$680,000.
- J. Deeper and broader promotion of railway travel with on-the-ground travel services to accommodate "cruise train" passengers: TRA worked with travel agencies to develop on-the-ground services for passengers on "cruise trains" with 2-day itineraries (or more). 2011 revenue of NT\$3,971,574 (including NT\$2,323,490 in ticket sales, NT\$452,215 in boxed lunch sales, NT\$133,369 in TRA merchandise and NT\$1,062,500 in licensing fees).

2.Active Utilization of Assets

I Station businesses

- a. Convenience stores and restaurants: TRA enhanced station services by partnering with professional vendors like Uni-President, Hi-life and McDonalds to operate their chain stores in all major TRA stations. The profit was over NT\$191.84 million, a decrease of 20.63% (NT\$49.85 million) from 2010's NT\$241.69 million.
- b. Specialty stores: TRA developed commercial space in each station by leasing to the private businesses to operate stores selling local specialties, souvenirs and other items. Total revenue in 2011 was over NT\$81.24 million, a 2.18% (NT\$1.73 million) increase from 2010's NT\$79.51 million
- c. Advertising: TRA rented space for light boxes, multimedia ads and posters in station areas. The 2011 revenue was NT\$54.70 million, a decrease of NT\$910,000 from 2010's NT\$55.61 million.
- d. Filming locations: Given growing interest in the film industry from both the government and the public, TRA formulated the "Guidelines for Rental of Locations and Equipment" on February 3, 2010. TRA accommodations for film crews receiving assistance from the "Central Organization's Promotion and Assistance of the Film Industry" fund. TRA worked with 70 film projects in 2011 for total rental revenue of over NT\$1.13 million.

I Leasing and utilization of station real estate

- a. Car park business: TRA built parking lots on land in station areas. As of the end of 2011, there were 103 parking lots along all rail lines. Total revenue from this source was NT\$228.98 million, a NT\$10.68 increase from last year's NT\$218.30 million.
- b. Real estate business: TRA made its unused properties, available for lease so long as it did not interfere with their intended uses. TRA also provided space for communication service providers including spaces for cellular base stations and fiber optic cables. Total revenue from this source was NT\$390.78 million in 2011, an increase of NT\$15.47 million from 2010's NT\$375.31 million.

I Land development and operating business

I Continuing construction projects

ROT Construction Projects (Rehabilitate – Operate – Transfer)

- a. In December of 2006, TRA entered into a contract for private business participation in the rehabilitation and operation of Taipei Main Station's Main Building levels G+2, G+1 and U-1. The special permit fee is NT\$60 million. At the end of October 2007, level G+2 was operational with annual revenue from the operating license (fixed fee) at over NT\$52.00 million. Levels G+1 and U-1 were operational on November 11, 2011 after a contractual expansion. Annual revenue from the operating license (fixed fee) may increase by more than NT\$12.00 million. Annual revenue from the operating license (percentage-based) could yield an additional amount of over NT\$12.06 million.
- b. In April of 2009, TRA entered into a contract for private business participation in the rehabilitation and operation of Banqiao Station's Main Building's U-1 employee cafeteria and commercial levels G+2, G+24 and G+25. The special permit fee was NT\$25.00 million. Annual revenue was over NT\$34.56 million for the fixed fee operating license and over NT\$28.42 million for the percentage-based operating license fee.



- (3) 新左營站旅運服務空間民間參與整建營運轉移案，100年11月14日契約，特許權利金420萬元，每年經營（定額）權利金收入252萬元，營運（抽成）權利金則按特許公司年度營業額逾8000萬至2億元抽成2-3.5%。

■ BOT (Build-Operate-Transfer, 建造—營運—移轉) 建設

- (1) 臺北車站特定專用區交九用地開發經營案，93年12月27日簽約，開發權利金6億5,121萬元、營運權利金為售價6‰、年租金興建期及營運期分別為公告地價1.05%及3%，98年8月19日轉運站正式啟用。
- (2) 南港車站大樓興建營運案，95年12月11日簽約，開發權利金8,000萬元、營運權利金總金額現值約16億4,711萬元、年租金興建期及營運期分別為公告地價1%及3%，預計101年9月開工、103年12月開幕營運。
- (3) 松山車站綜合大樓暨立體停車場大樓興建營運案，96年5月15日簽約，開發權利金1億2,000萬元、營運權利金總金額現值約13億5,996萬元且不低於每年營業淨收入4.4%、年租金興建期及營運期分別為公告地價1%及3%，預計101年6月開工、103年6月開幕營運。
- (4) 萬華（東、西）車站大樓民間參與興建營運案，98年3月10日簽約，開發權利金1億6,000萬元、年租金興建期公告地價1%、營運期（前10年）為公告地價3%、營運期（後40年）為公告地價4%，預計102年3月開工、104年6月開幕營運。

■ 都市更新業務

- (1) 政府規劃都市更新案：共約南港調車場土地更新案等11處，其中蘭城之星、基隆火車站、南港調車場、新竹火車站後站、豐原火車站周邊、高雄港站等6處辦理招商檢討作業。
- (2) 民間自提都市更新案：已完成板橋舊宿舍區都市更新案1處，目前進行事業計畫或權變計畫者約臺北市大同區雙連段都市更新案等7處。

■ 設定地上權業務

板橋車站特定區（特專二）國際觀光旅館興建營運案，99年8月23日簽約，開發權利金5,000萬元、營運權利金為每年營運總收入之2.45%、年租金為特許期申報地價5%，前開收益本局約佔28.71%，預計104年6月開幕營運，預計101年9月開工。

(四) 資產活化利用效益分析

本局積極拓展資產活化利用事業，其營運績效逐年提升，100年收益已超出20億元，加強開源，以有效挹注虧損，並減少資金缺口。

| 100年提供使用類型 | 面積Area (m ²) | 收益 (千元) Revenue(thousands) | 備註 Remark |
|---------------------------------|--------------------------|-------------------------------|---|
| 出租 Lease | 17,723,813,34 | 1,332,271 | |
| 利用 Utilization | 241,500 | 437,022 | |
| 委託經營 Operation of entrusting | 6,900,23 | 189,520 | 便利商店及餐飲服務 Convenience stores and catering services |
| 設定地上權 Superficies | 79,881 | 65,453 | 促參建設權利金 Continuing construction royalties |
| 其他 Other | | 23,120 | 廣場與會議室租借 Leasing of meeting rooms and squares |
| 共計 Total | 18,052,094,57 | 2,047,386 | |

■ 績效重點

- (1) 依促進民間參與公共建設法及相關法令，戮力推動民間參與投資興建及營運車站大樓，俾節撙預算、強化車站功能、繁榮鐵路發展及增加車站開發效益。
- (2) 配合政府政策，積極辦理都市更新作業，以增加收益。
- (3) 以公開招標或評選方式，引進知名連鎖公司於本局車站設賣店據點。

- c. On November 14, 2011, TRA entered into a contract for private business participation in the rehabilitation, operation and transfer of Xinzuoing station's travel services space. The special permit fee is NT\$4.20 million. Annual revenue could be NT\$2.52 million for the fixed fee operating license. Annual revenue for the percentage-based operating license will be 2-3.5% of the private businesses' total operating revenue between NT\$80 million and NT\$200 million.

| BOT Construction Projects (Build-Operate-Transfer)

- a. On December 27, 2004, TRA entered into a contract to develop for operation the Jiujiiao area of Taipei Main Station. The developmental permit fee was NT\$651.21 million. The operating license fee was 6% of the sales price. The annual rental fees for the construction and operational phases are 1.05% and 3% of the official land price respectively. On August 19, 2009, the transfer station began official operations.
- b. On December 11, 2006, TRA entered into a contract for building and operating the Nangang Station Main building. The developmental permit fee was NT\$80.00 million. The total operating license fee is currently worth approximately NT\$1.64711 billion. The annual rental fees for the construction and operational phases are 1% and 3% of the official land price respectively. Construction is scheduled to begin in September of 2012 with the facility operational in December 2014.
- c. On May 15, 2007, TRA entered into a contract for building and operating the Songshan Station mixed-use building and standing parking lot. The developmental permit fee was NT\$120.00 million. The total operating license fee is currently worth approximately NT\$1.35996 billion and has a minimum amount of 4.4% of operational profits. The annual rental fees for the construction and operational phases are 1% and 3% of the official land price respectively. Construction is scheduled to begin in June 2012 with the facility operational in June 2014.
- d. On March 10, 2009, TRA entered into a contract for private business participation in building and operating the Wanhua Station Building (East and West). The developmental permit fee was NT\$160.00 million. The annual rental fee for the construction phase is 1% of the official land price. The annual rental fees for the operational phase are 3% of the official land price for the first 10 years and 4% for the last 40 years. Construction is scheduled to begin in March 2013 with the facility operational in June 2015.

| Urban renewal projects

- a. Government Urban Renewal Project: This project covers 11 locations including the Nangang Towing Yard Renewal Project. Six locations are currently in the contract assessment and investigation phase including: Lancheng Star, Keelung Train Station, Nangang Towing Yard , etc.
- b. Private Urban Renewal Projects: One has already been completed in the Banqiao Old Dormitory Area Urban Renewal Project. Projects currently in the planning or rights transfer stages include 7 locations .

| Setting land rights

On August 23, 2010, TRA entered into a contract to build and operate Banqiao Station's Designated Area (Special Area 2) International Tourism Hotel. The developmental permit fee was NT\$50.00 million. The operating license fee is 2.45% of total annual operational revenue. The annual rental fee for the special permit phase is 5% of the official land price. TRA will receive 28.71% of profits from the initial operational phase.

4. Results and Analysis of Active Utilization of Assets

TRA has made large strides in the active utilization of assets and continues to improve every year. Profits from 2011 were more than NT\$2 billion. TRA has strengthened its use of assets and effectively avoided losses.

| Key results

- a. In accordance with laws and policies encouraging private participation in public construction projects, TRA has spurred private businesses into investing and participating in the construction and operation of TRA buildings and spaces. This has helped TRA control budget, and increase effective of station operations.
- b. TRA has increased its earnings by continuing with urban renewal projects in accordance with government policies.
- c. TRA has successfully attracted well-known chain stores to operate in its stations through bidding and selection processes.



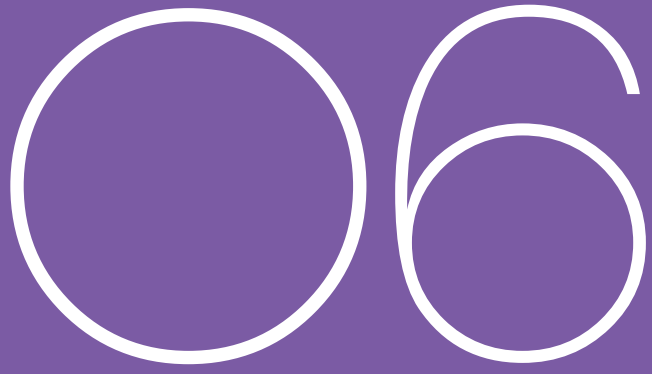
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| 目的地 | 站名 | 車次 | 到站 | 開車 |
|-----|----|------|-------|-------|
| 基隆 | 基隆 | 2001 | 10:15 | 10:20 |
| 台北 | 台北 | 2002 | 10:15 | 10:20 |
| 桃園 | 桃園 | 2003 | 10:15 | 10:20 |
| 新竹 | 新竹 | 2004 | 10:15 | 10:20 |
| 苗栗 | 苗栗 | 2005 | 10:15 | 10:20 |
| 台中 | 台中 | 2006 | 10:15 | 10:20 |
| 台南 | 台南 | 2007 | 10:15 | 10:20 |
| 高雄 | 高雄 | 2008 | 10:15 | 10:20 |



臺北車站





事業運作狀況

Business Division Operation Situation

運輸業務

Transportation Business

工務工程

Construction Engineering

機務工程

Rolling Stock Engineering

電務工程

Electrical Engineering

餐旅服務

Catering Services

貨運服務與出租業務

Freight Services and Leasing Activities

行政管理及人員訓練

Administrative Management and Personnel Training

資產管理及資產活化

Property Management and Active Utilization



運輸業務

(一) 客運業務

■ 落實顧客導向，提供無縫運輸服務

- (1) 提升列車準點率：提升全線列車準點率為94%。
- (2) 調整列車時刻：因應六家線啟用暨推動基隆－臺北鐵路捷運化，加強南、北迴線運能並建構臺鐵捷運網，自100年9月28日起部分班次時刻微幅調整。
- (3) 重新編修各級列車碼：因整體運輸環境變遷及旅客市場的快速成長，舊有列車編碼方式已不敷使用，配合本年度列車時刻調整，重新編修各級列車碼，以方便旅客記憶與運用。
- (4) 配合蘇花改工程，提升客貨運能：
 - ① 預計完成永樂等6站站場改善及改造250輛貨車。
 - ② 機動調整宜蘭－花蓮間觀光旅次運能。

■ 結合鐵道文化，拓展觀光跨線旅次

- (1) 辦理「火車環島接力·百年車站巡禮」活動。
- (2) 結合觀光局及業者，擴大鐵路旅遊深廣度及便利性。
- (3) 配合東部自行車路網示範計畫，開行兩鐵列車。

■ 提升運輸服務效能

- (1) 臺南沙崙線及新竹六家線通車啟用，完成軌道無縫運輸，便利兩鐵旅客轉乘接駁：
 - ① 100年1月2日臺南沙崙線通車啟用，整合臺南地區（含臺南、仁德、歸仁、永康及善化等地）軌道運輸，提供往來臺南都會區民眾完善綿密之運輸服務網。
 - ② 100年11月11日新竹六家線通車啟用，整合新竹地區（含新竹、六家、內灣及竹東等地）軌道運輸，促進內灣地區之觀光與發展。
- (2) 強化花東、南迴線及北迴線運能
 - ① 100年4月8日起逢周五、六、日、一加開樹林往返臺東半直達復興號，並採取優惠票價。
 - ② 100年10月1日起逢六、日加開新左營往返臺東半直達復興號，並採取優惠票價。
 - ③ 100年9月28日年度時刻調整，逢週五、六、日、一加開6列次太魯閣號及2列次自強號列車。

■ 提升為民服務品質

- (1) 服務品質獲得交通部肯定：本局由新竹、宜蘭二站代表參評100年度交通部服務品質獎，經交通部委員考評後由新竹站獲頒此項殊榮，並經交通部提報參評100年度行政院「政府服務品質獎」。
- (2) 建置完成宜花東18車站、沙崙線及內灣線ITS（Intelligent Transportation Systems，智慧型運輸系統）。
- (3) 旅客服務諮詢執行優良：

旅客整體服務諮詢系統100年度執行現況如下：

 - ① 中文網頁年度點閱率：41,380,734人次。
 - ② 兒童網頁年度點閱率：53,607人次。
 - ③ 局長信箱旅客諮詢案件共回復14,488件。
 - ④ 遺失物協尋資訊服務共17,779件。
- (4) 免費提供時刻表：100年度為因應9月28日列車時刻調整，分別印製冊本式及摺頁式時刻表各50萬、25萬份，分置於各車站供旅客免費索取。

(二) 貨運業務

■ 提升貨車營運效能，增加貨運運輸業務

- (1) 改造閒置貨車，藉以提高運能。
- (2) 鼓勵貨主自備貨車，藉以節省購車成本，並確實掌握大宗貨源。
- (3) 配合大宗貨物產銷計畫需求，開行專列貨車，以提升運輸效能。

1. Passenger Transportation

■ Meeting the needs of passengers with seamless transportation services

- a. Increasing punctuality of trains: total percentage of punctual trains on all lines was 94%.
- b. Adjusting train timetables : Opening of Liujia line and the mass rapid transit systematization of Keelung to Taipei line have strengthened services on the north-link and south-link lines. A slight timetable adjustment was made on September 28, 2011.
- c. Renumbering trains: In conjunction with the timetable adjustment, TRA renumbered its trains to make them easier for passengers to remember and use.
- d. Strengthening capacity in response to Suhua Highway construction work:
 - ① Completion of renovation of 6 stations including Yongle station and conversion of 250 freight trains.
 - ② Adjustment of transportation capacity for tourism passengers between Yilan and Hualien.

■ Integrating railway culture and promoting tourism across railway lines

- a. Hosted the "Around-the-island Train Relay: Touring a Century of Railway Stations" activity.
- b. Increased convenience, of railway travel to jointly meet the needs of the tourism bureau and tourism industry.
- c. Began running bicycle-friendly trains to promote the East Coast bicycle route.

■ Increasing effectiveness of transportation services

- a. Opened Shalun and Liujia lines, completed seamless transportation network, provided convenient transfers for passengers with bicycles:
 - ① On January 2, 2011, TRA opened Shalun line and provided a connected transportation network for all passengers in the Tainan area (Tainan, Rende, Guiren, Yongkang and Shanhua).
 - ② On November 11, 2011, TRA opened Liujia line and provided a connected transportation network for Hsinchu, Liujia, Neiwan and Zhudong to promote tourism and development in the Neiwan area.
- b. Strengthened the transportation capacity of Hualien to Taitung, north-link and south-link lines
 - ① Starting from April 8, 2011, TRA provided an extra semi-direct Fuxing Express train between Shulin and Taitung every Friday to Monday with discounted ticket prices.
 - ② Starting from October 1, 2011, TRA provided an extra semi-direct Fuxing Express train between Xinzuoing and Taitung every Saturday to Sunday with discounted ticket prices.
 - ③ After timetable adjustment on September 28, 2011, TRA provided 6 new Taroko Express trains and 2 new Tzu-chiang Express trains every Friday to Sunday.

■ Improving quality of customer service

- a. TRA's high quality of customer service was affirmed by the MOTC's 2011 "MOTC Service Quality Award". TRA submitted Hsinchu and Ilan stations for this award and Hsinchu station was honored with the selection from the MOTC's selection committee. Then the MOTC recommended Hsinchu station for the Executive Yuan's 2011 "Government Service Quality Award".
- b. TRA completed the "Intelligent Transportation Systems" (ITS) program at 18 stations between Ilan, Hualien and Taitung and on the Shalun and Neiwan lines.
- c. High quality of customer service:

TRA's 2011 overall customer service interactions are broken down as follows:

- ① Number of visits to TRA's Chinese website in 2011: 41,380,734
 - ② Number of visits to TRA's children's website in 2011: 53,607
 - ③ Number of letters received and replied to from the Director General's suggestion box: 14,488
 - ④ Number of lost-and-found service cases: 17,779
- d. Free train timetables: In conjunction with the September 28 timetable adjustment, TRA printed 500,000 timetable booklets and 250,000 folding timetables to be provided at each station free of charge.



- (4) 提升貨車週轉效率，提高運能。
- (5) 積極拓展東部砂石運輸業務以確保營收。
- (6) 增闢公共貨場，並改善貨場週轉效率、路線及站場，容納更多貨物吞吐量。
- (7) 推廣傾卸式貨櫃不落地載運，以提升貨物及貨車運用效率。
- (8) 鼓勵自備貨車回程重車裝載，增加自備貨車運用效率。
- (9) 推廣綠能運輸，增加工程剩餘土方運量。

工務工程

■ 路線養護

辦理全線軌道路線改善100年度累計抽換枕木15,690根、抽換鋼軌28,626公尺、補充道碴：用碴47,942立方公尺；補充367.25公里、抽換道岔80套。

■ 橋隧路基改善

- (1) 委託專業技術服務機構進行沿線712座重要橋梁檢測及耐震、耐沖刷評估，預計101年底完成評估作業。未來將依檢測結果評估需求輕重緩急辦理改建或補強，俾提高橋梁結構安全。
- (2) 辦理南迴線中央等9座隧道加固工程之安全檢測評估及加固設計，俾作為日後補強加固執行參考依據，100年7月9日完成集集線全線老舊隧道加固工程。

■ 推動綠色站場，打造節能減碳運環境

- (1) 輕量化站體設計，輔以再生能源利用、太陽光電系統及風力發電系統，基地保水、CO2減量等綠建築指標，推動竹北站候選為黃金級綠建築，完工後將以提升為鑽石級綠建築為目標。
- (2) 改善月台與車廂齊平，配合列車進出台階，提高車站月台高度，第一階段提高至92公分。縮短旅客上下車時間，減少列車停靠站時間，提高列車準點，構建現代化友善運輸環境。100年度完成58站，累計月台提高共完成86站。



機務工程

■ 車輛增購

接續執行「臺鐵整體購置及汰換車輛計畫（2001－2014年）」，於期限內共計擬採購傾斜式電聯車184輛及通勤電聯車428輛。

- (1) 傾斜式電聯車（太魯閣號）第一階段48輛業已於96年交付完成，第二階段136輛製造中，預定101年10月開始分批交車。
- (2) 160輛通勤電聯車（EMU700型）業已於96年交付完成，餘268輛案併沙崙、內灣需用28輛，共擬再採購296輛案業於100年1月12日決標。該案由臺灣車輛公司設計製造中，預定101年9月開始分批交車，104年年中交畢。

■ 車輛改善

- (1) 依部長指示檢修LDK59、LDR2204、LDR2307、LTPB1375、LTPS1102，並於花蓮站復駛。
- (2) 柴聯車組DR2900及DR3000型動力系統更新及安裝工程，依據「環島鐵路整體系統安全提升計畫」辦理柴聯車動力系統更新。
- (3) 35噸篷車改造為30噸敞車100輛、35噸篷車改造為30噸敞車150輛工程分別於100年6月22日及9月7日完工。
- (4) 50F200型平車加裝貨櫃固定架35輛工程已於100年6月27日完工。

2. Freight Transportation Business

- **Increasing operational effectiveness of freight cars and freight transportation business**
 - a. Refit unused freight trains to increase transportation capacity.
 - b. Encourage freight customers to use their own freight cars to save on car procurement costs and take advantage of bulk freight sources.
 - c. Respond to production and sales demands of bulk freight customers by operating dedicated freight trains to improve transportation effectiveness
 - d. Increase efficiency of freight train turnovers to increase transportation capacity.
 - e. Secure revenue by expanding into market for gravel transportation on eastern line.
 - f. Open public freight yards to accommodate more freight throughput. Increase efficiency of turnover at freight yards.
 - g. Promote dumping freight wagons that do not touch the ground to increase effectiveness of customer-owned freight cars.
 - h. Increase effectiveness of customer-owned freight cars by encouraging reloading of freight trains for return trips.
 - i. Promote green energy transportation and increase freight loads of excess construction soil units.

Construction Engineering

- **Rail maintenance**

In 2011, TRA performed maintenance on its entire rail system. It replaced 15,690 sleepers as well as 28,626 meters of rail. TRA also added 47,942 cubic meters of track ballasts. A total of 367.25 km were maintained with 80 sets of track switches replaced.
- **Bridge and tunnel roadbed improvement**
 - a. TRA employed professional technicians to conduct earthquake and erosion assessments on 712 major bridges. The assessments are estimated to be completed in the end of 2012. Once completed, TRA will use these assessments to prioritize rebuilding and fortification efforts on these bridges to increase bridge safety.
 - b. TRA performed fortification assessments on 9 tunnels on the central line of south-link line to determine how to design fortifications. TRA will use these assessments to guide its fortification efforts. On July 9, 2011, TRA completed its fortification work on the old tunnel system of entire Jiji line.
- **Development of green train stations and a sustainable, carbon-reducing transportation environment**
 - a. Zhubei station was selected as a "gold standard" green building for its lightweight construction design, use of sustainable materials, solar and wind powered systems, groundwater retention and CO2 reduction initiatives. When the station is completed, its goal will be to be rated a "diamond standard" green building.
 - b. TRA continued its efforts to lessen the gap between trains and platforms and raise station platforms to better accommodate the steps onto trains. The first phase was elevating the platforms to 92 cm. This will decrease passenger boarding and alighting times, decrease the time trains spend at stations and increase train punctuality for a modern and friendly transportation environment. This task was completed at 58 stations in 2011 for a cumulative total of 86 stations with adjusted platforms.

Rolling Stock Engineering

- **Rolling stock procurement**

According to the "TRA Train Procurement and Replacement Plan (2001 to 2014)", TRA purchased 184 tilting EMU cars and 428 commuter EMU cars in the allotted time.

 - a. TRA paid for and received 48 tilting EMUs (Taroko Express) in the first phase in 2007. The second phase of 136 cars is currently in the manufacturing process. Delivery is scheduled to begin in October 2012 in phases.
 - b. TRA paid for and received 160 commuter EMUs (EMU700) in 2007. In addition to the remaining 268 cars, the Shalun and Neiwan lines require 28 cars. Bidding for the procurement of 296 cars was completed on January 12, 2011. The Taiwan Rolling Stock Company is



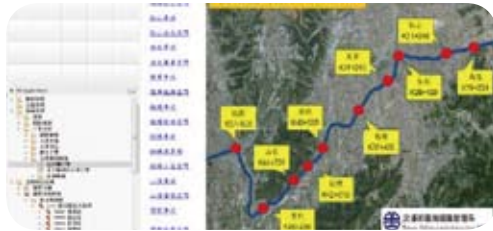
電務工程

號誌

- (1) 完成第一階段〔南港—桃園（不含）〕號誌維修管理系統（SMMIS）建置，以電腦化方式管理號誌設備維修作業流程，落實經常性維護工作，藉以減少號誌障礙，提升鐵路行車號誌可靠度及行車準點率。
- (2) 新增第二代新型資訊可變式方向指示器總計80處，整合鐵路平交道安全標語，即時傳達用路人穿越平交道行車安全訊息。

電力

- (1) 配合臺鐵都會區捷運化更新電車線設備，以提升供電穩定度，完成基隆—竹南間95主吊線更換109公里。
- (2) 配合臺鐵都會區捷運化列車密度增加，擴增變電站容量，以提高供電之可靠度，完成新竹變電站容量擴建工程，其容量由30MVA擴增為50MVA，計增加66%。



SMMIS系統建置
SMMIS system implementation



車站錄影監控設備
Video surveillance system equipment at a TRA station

電訊

辦理完成217個車站錄影監控設備建置，達到整體監視系統集中統一管理目的，並具提醒與防止人員、旅客闖越功能，提升旅客進入車站搭乘安全。

餐旅服務

商業空間多角化經營

- (1) 車站場地活化利用與商場開發經營。
- (2) 提高車站場地短期出租使用率及經營面積之擴充。

開發鐵路商品及銷售通路多樣化

- (1) 建置網路購物系統。
- (2) 配合特殊節日開發鐵路商品與銷售。

拓展臺鐵便當市場

- (1) 維護便當衛生，提升便當品質。
- (2) 與民間業者合作，加強提供東部、南迴車銷飯盒數量。
- (3) 持續拓展便當外送服務。
- (4) 增設便當販售點。

發展鐵路觀光旅遊業務

- (1) 結合民間業者，發展多元化鐵路旅遊業務。
- (2) 車站場地設置旅遊服務中心。
- (3) 發行「鐵道旅行·幸福100」筆記書，及提供蓋用100個幸福車站紀念戳章。

提升服務品質

- (1) 規劃感動服務變革計畫。
- (2) 提升車勤服務品質。

currently in the manufacturing process for these cars. Delivery is scheduled to begin in phases in September 2012 and will be completed in the middle of 2015.

| Train conversion

- a. Under direction from the Minister, TRA performed overhaul operations on LDK59, LDR2204, LDR2307, LTPB1375 and LTPS1102 and also renovated at Hualien station.
- b. TRA updated and installed power trains for the DMU types DR2900 and DR3000 in accordance with the "Environmentally friendly railway total system safety improvement plan".
- c. TRA completed two projects to convert 35-ton boxcars to 30-ton open freight cars. On June 22, 2011, 100 cars were converted. An additional 150 cars were converted on September 7.
- d. On June 27, 2011, TRA completed its project to add fixed container racks to 35 50F200 flat cars.

Electrical Engineering

| Signals

- a. Phase 1 of the implementation of the signal maintenance management information system (SMMIS) was completed (Nangang to Taoyuan (not including Taoyuan)). The SMMIS uses computerized systems to control procedures for signal repair and maintenance. The system implemented recurring maintenance operations, reducing the number of signal problems and increasing the reliability of the signaling systems and train punctuality.
- b. Second generation remote controlled electronic messaging directional indicators were installed at 80 locations. These devices are capable of combining safety signaling at level crossings with messaging functions to pedestrians and cars at level crossings.

| Electrical power

- a. TRA replaced train power lines as part of the metropolitan area rapid transit systematization program. Upgrades for a total of 95 main suspension wires or 109 km of wire were completed between Keelung and Zhunan stations.
- b. TRA increased the number and density of trains as part of the metropolitan area rapid transit systematization program. The load capacity of Hsinchu station's transformer substation was successfully increased from 30 MVA to 50 MVA, a 66% increase.

| Communications

TRA implemented closed circuit video surveillance systems at 217 stations and accomplished its goal of integrating entire video surveillance system. This increased TRA's ability to remind and prevent persons from crossing into restricted areas.

Catering Services

| Catering Services multi-faceted use of commercial space

- (1) Actively utilized space in train stations and developed commercial enterprises.
- (2) Increased short-term rentals of station spaces and expanded available commercial areas.

| Development of railway merchandise and diversification of sales channels

- (1) Built online sales system.
- (2) Developed and sold railway merchandise in conjunction with special days and holidays.

| Expansion of the market for TRA boxed lunches

- (1) Maintained sanitary and high-quality boxed lunches.
- (2) Collaborated with private businesses to increase boxed lunch sales on eastern and south-link lines.
- (3) Expand boxed lunch delivery service.
- (4) Increased sales locations for boxed lunches.

| Development of railway tourism

- (1) Partnered with private businesses to develop diversified travel and tourism services.
- (2) Established travel service centers at train stations.
- (3) Issued the "Discover Taiwan by Railway" notebook with 100 commemorative stamps to represent 100 train stations.

| Elevation of customer service quality

- (1) Established the "touching service" reform plan.
- (2) Elevated onboard service quality.



貨運服務與出租業務

傳統大宗貨運承攬

目前積極配合公、民營業者煤炭、水泥、砂石等大宗貨物運送為主。

快遞業務

利用本局推拉式自強號辦理西部各大車站及宜蘭花蓮等車站間快遞服務。

出租業務：

- (1) 以多元化經營開發車站商場、土地、停車場、倉庫及廣告等業務。
- (2) 配合相關法令 修訂時機，研議放寬出租標的用途使用限制，以期提升承租業者投標意願。
- (3) 推動鐵道文化與觀光產業發展事項，依法配合臺東、新竹縣政府發展之「競爭型國際魅力據點示範計畫」，重新形塑車站新商圈並將帶動週遭商業發展，更能增加就業機會及經濟效益，縣政府共同創造車站嶄新的來。
- (4) 配合花東郵輪式列車騎乘自行車，辦理提供兩鐵旅遊暨自行車活動相關配套商業服務。

廣告業務

在不影響車站秩序、行車安全及破壞建物結構範圍內，開發更多可利用空間，規劃燈箱、多媒體、車體、車廂及海報招貼等廣告標的出租。

拍攝場地出租

配合政策推展文化產業，受理電影、電視，及廣告等業者拍攝申請。

車站商場OT/ROT

依據「促參法」相關規定規劃車站商場以活化資產，引進民間充沛資金及創意，使車站成為地區商業重心，成為匯集人文與凝聚商機之絕佳地點，配合大環境改變及法規之妥適修訂，並調整營運策略，掌握景氣復甦徵候，多元開發擴大市場，以期附業收益逐年提高。

基地台空間出租

為方便行旅並配合政府電信自由化政策，在不影響行車安全及行車通訊品質原則下，開放本局車站、房地供電信業者架設行動電話基地台。

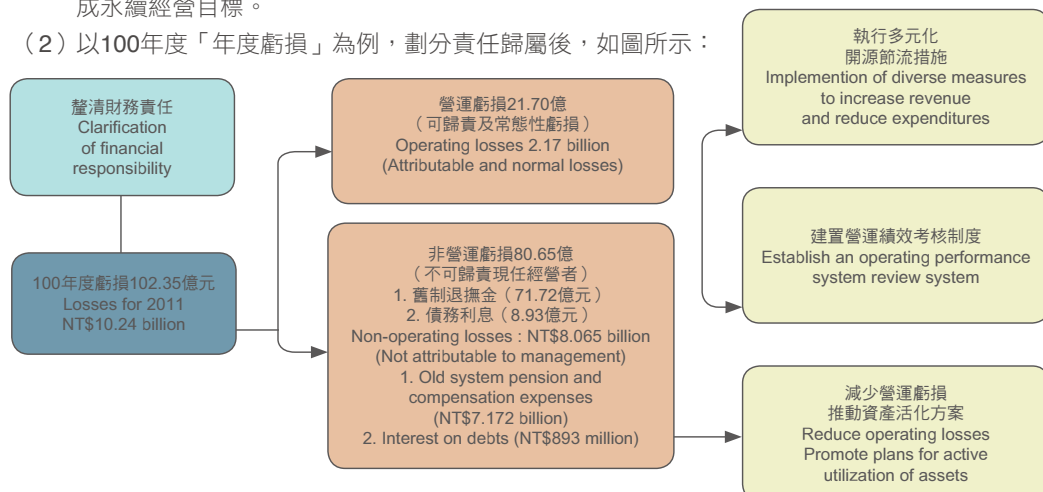
行政管理及人員訓練

(一) 推動經營績效責任制

年度虧損區分為營運虧損與非營運虧損

(1) 為合理考評經營者經營責任，依交通部指示，將年度虧損區分為營運虧損與非營運虧損，營運虧損含可歸責及常態性虧損（例如老人及身心障礙半價優待、服務性路線與小站虧損等）；非營運虧損包括「舊制退撫金」、「債務利息」等不可歸責現任經營者，以考核經營者年度經營責任，並責成本局執行多元化開源節流措施，建置營運績效帳，以評核財務改善成果；另為解決龐大債務，推動資產活化方案，以創造收益，改善財務，逐步清償債務，達成永續經營目標。

(2) 以100年度「年度虧損」為例，劃分責任歸屬後，如圖所示：



Freight Services and Leasing Business

Traditional bulk freight transportation

TRA provided bulk freight transportation services to public and private customers for coal, cement and gravel.

Express delivery services

TRA used Tzu-chiang Express push-pull trains to provide express delivery services for major stations on the western line as well as stations between Ilan and Hualien.

Rental and Leasing Business :

- a. TRA used diverse means to develop the rental business for commercial space in train stations, land, parking lots, warehouses and advertising areas.
- b. In conjunction with legislative reform, TRA discussed the loosening of restrictions to make bidding processes available to potential renters.
- c. TRA promoted railway culture and the tourism industry in accordance with the Taitung and Hsinchu county government's "Competition-based International Tourist Destination Pilot Program." Working with county governments, TRA increased business opportunities and economic performance to create brand-new train station areas.
- d. TRA provided bicycle-friendly trains and relevant services to accommodate the Hualien to Taitung "cruise trains" with bicycling itineraries.

Advertising business

TRA developed more spaces to rent to advertisers in station areas . These spaces included: light boxes, areas for multimedia ads, train exteriors, train interiors and poster areas.

Filming location rental

In conjunction with government policies promoting the arts, TRA allowed film, television and commercial producers to rent out TRA locations for filming.

(OT) and (ROT) plans for station commercial spaces

In accordance with the "Promotion of Private Participation Act", TRA utilized station commercial spaces and encouraged private businesses to invest and operate successful business enterprises. These spaces are cultural and commercial hubs that help TRA keep pace with changing times and legal reforms. TRA uses these spaces to augment operational strategies and expand to more diverse markets. TRA expects the profits from these ventures to continue growing year by year.

Base station rentals

For the convenience of travelers and in accordance with government policy to liberalize telecommunications, TRA allowed telecommunications providers to set up base stations in TRA station areas.

Administrative Management and Personnel Training

1.Promotion of a Performance Accountability System

Division of annual losses into operating losses and non-operating losses

- a. To reasonably evaluate management's annual operational performance, annual losses were divided into operating losses and non-operating losses as directed by the MOTC. Operating losses included both losses attributable to management and normal losses (such as losses from half-price tickets for seniors and the physically or mentally disadvantaged and ticket sales on service lines or commute stations). Non-operating losses included "pension and compensation expenses under the old system", interest on debt and other losses that cannot be attributed to management. This system helps evaluate the annual performance of management and provides guidance toward the creation of a diverse set of measures to increase revenue and reduce expenditures. In addition, TRA pursued projects for active utilization of assets to increase revenue and turn its finances around. TRA will gradually pay off its debt toward the goal of a sustainable operation.
- b. The attribution of responsibility for annual losses in 2011 is shown in the following figure.



■ 勵行開源節流，提升營運績效

(1) 積極開源：100年度目標值203.28億元，實收208.46億元，增加5.18億元，已達年度目標，另較99年度增加7.68億元。

(2) 勵行節流：100年度目標值227.48億元，實支230.16億元，超支2.68億元，未達年度目標，另較99年度增加0.18億元。

(二) 採購業務

■ 工程採購統計

100年度辦理預算逾公告金額十分之一以上之工程採購案件共計337件，合計預算金額為新臺幣86億2,434萬元，決標金額計新臺幣 67億 2,563萬元，為預算金額之77.98%，節餘新臺幣18億9,871萬元。

■ 勞務採購統計

100年度辦理預算逾公告金額十分之一以上之勞務採購案件共計248件，合計預算金額為新臺幣30億170萬元，決標金額計新臺幣 27億 9,377萬元，為預算金額之93.07%，節餘新臺幣2億793萬元。

■ 財物採購統計

100年度辦理財物採購案件共計305件，合計預算總金額新台幣201億1,525萬元，決標總金額新台幣190億7,815萬元，為預算金額之94.8%，節餘金額計新臺幣10億3,710萬元。

(三) 提升材料管理改善作業，加強員工專業知識訓練

■ 積極落實「材料請購責任制實施要點」

經查1至3年未使用材料已由96年之2億6,500萬元，下降至100年12月之6,876萬元。

■ 執行材料管理聯合稽核計畫

以落實庫存材料、維修及工程拆收材料、報廢財產之管理，避免弊端發生。100年度按季分北、中、南、東四區共38個存料單位辦理聯合稽核作業。

■ 加強PA系統，以利材料E化管理

100年度已完成PA811鐵工局剩餘料輔助帳管理系統並分北、中、南、東四區辦理系統說明會以利各存料單位對鐵工局剩餘料之管理及有效調撥利用。

■ 加強呆廢料標售處理

100年度廢料標售金額計2億9,033萬元，達年度執行目標2億2,400萬元之129.61%。

■ 辦理員工在職訓練

於員訓中心辦理管料人員材料管理訓練及採購基礎專業訓練課程，以強化同仁專業知識；另於北、中、南、東四區辦理採購作業研討會，宣導採購法令及作業規定，以增進本局經辦採購同仁對政府採購法及相關規定的了解。

(四) 會計與統計業務

■ 勵行開源節流，提升營運績效

本局積極推動票價合理化方案，西部幹線實施區段票價，簡化購票程序，並配合票證整合政策，便利轉乘；改善花東及東西部跨線城際運輸，強化西部幹線區域性與都會通勤（捷運化）及中長程城際運輸；推動無縫運輸，與捷運、客運及公車進行電子票證整合，與高鐵及捷運進行場站班次及資訊整合；加強行銷策略，推動旅客會員制度；強化鐵路觀光旅遊，進行異業結盟，創造客製化的觀光客群，增加營收；有效利用既有資產發展行旅生活服務事業，擴大附屬事業商機，以改善財務狀況，減少營運虧損。100年度客運量與營收雙雙創高鐵通車後新高，客運收入較99年同期增加9.51億元，營運量成長8.47%，呈現開源節流成效。

■ 配合與落實國際會計準則實施

持續推動本局整合性策略成本管理資訊系統建置，深化本局整體營運管理與決策品質。針對本局整體營運業務包括營業管理與業務會計作業、實體配送管理與運輸成本會計作業、基礎工程管理

Strong promotion of measures to increase revenue and reduce expenditures and to increase effectiveness of operating

a. increasing revenue: The target revenue for 2011 was NT\$20.328 billion. Actual revenue was NT\$20.846 billion, an increase of NT\$768 million from 2010 and exceeding target revenue by NT\$518 million.

b. Reducing expenditures: The target expenditures for 2011 were NT\$22.748 billion. Actual expenditures were NT\$23.016 billion, an increase of NT\$18 million from 2010. The target was not met and was exceeded by NT\$268 million.

2. Procurement

Engineering procurement statistics

In 2011, there were 337 engineering procurement cases where the budget was 10% or more of publicly announced prices. The total budget was NT\$8.62434 billion. Actual procurement expenditure totaled NT\$6.72563 billion. Expenditure accounted for 77.98% of the budget with savings of NT\$1.89871 billion.

Labor procurement statistics

In 2011, there were 248 labor procurement cases where the budget was 10% or more of the publicly announced cost. The total budget was NT\$3.170 billion. Actual procurement expenditure totaled NT\$2.79377 billion. Expenditure accounted for 93.07% of the budget with savings of NT\$279.3 million.

Property procurement statistics

In 2011, there were 305 property procurement cases. The total budget was NT\$20.11525 billion. Actual procurement expenditure totaled NT\$19.07815 billion. Expenditure accounted for 94.8% of the budget with savings of NT\$1.3710 billion.

3. Improvement of materials management work and strengthening employees' professional training

Implementation of "Instructions for Implementing a Materials Requisition Accountability System"

Investigations found that the value of materials that have been unused for 1 to 3 years has decreased from NT\$265.00 million in 2007 to NT\$68.76 million as of December 2011.

TRA implemented the materials management

Joint Audit Plan to properly manage stockpile materials, materials taken down from maintenance and engineering products and scrapped materials. This plan helped TRA avoid the drawbacks occur in materials management. In 2011, according to season, TRA performed joint audits on 38 stockpile locations in the north, center, south, east and west sections.

Strengthen PA system for electronic materials management

In 2011, TRA completed the PA811 Railway Reconstruction Bureau's leftover materials auxiliary account management system. TRA hosted explanatory meetings on the system to allow stockpile managers to more effectively allocate and manage the leftover materials.

Improved auctioning for scrap materials

In 2011, the auction of scrap materials netted a total of NT\$290.33 million, reaching 129.61% of the annual performance target of NT\$224.00 million.

On-the-job training for employees

TRA increased the professional knowledge of staff through the Staff Training Center's training sessions on better materials management and procurement skills for stockpile employees. In addition, TRA held seminars on procurement work to provide guidance on laws and regulations to increase the procurement capabilities of employees and enhance their knowledge on government procurement laws and regulations.

4. Accounting and Statistics Work

Increasing revenue and reducing expenditures for better operational performance, and increasing effectiveness of operating

TRA promoted making ticket prices more reasonable. For the western line, TRA implemented sectional pricing, simplified ticket purchasing procedures, integrated ticketing operations and



與工程會計作業、材料管理與材料會計作業、財產（物品）管理與財產（物品）會計作業、資金管理與財務出納會計作業、車輛修造管理與工廠會計作業、人力資源管理與人力資源會計作業、一般支出與普通會計作業等業務活動及會計事務之處理，並導入作業制成本與管理制度，生命週期成本、品質成本、目標成本、產能成本與管理等，以會計作業為核心及建構資訊平臺，即時提供各部門業務活動資訊交換與共享，拉近作業距離，縮短作業時間，加快作業速度，提升作業效率，厚植生產力、創新力及競爭力。

辦理各項民意調查

以供檢討各項業務缺失，擬訂因應改善對策，落實「以客為尊」之服務理念。

(五) 人事業務

舉辦新進人員座談會

為讓新進人員熟悉公務環境及作業流程，適時給予關懷、瞭解渠等適應狀況，分享工作經驗及心得，以增進彼此互動交流機會及凝聚向心力，於年底隨機抽選各單位新進同仁計60人，參加新進人員座談會，為強化互動，以下午茶之方式舉行，座談會並以加強宣導本局使命、願景、價值及策略目標等經營理念、當前重點工作、守法守紀的觀念等，以培養員工團隊精神。



減重暨健康管理班

(1) 為落實員工關懷措施，提升同仁身心健康，同時倡導勞工終身學習，增進勞工生活知能，以確保行車安全，本局參酌臺北市政府衛生局舉辦之「健康減重101、幸福臺北一等等」等相關活動，並參考臺灣健康減重推廣協會，衛生署食品資訊網等具權威之網站蒐集相關資訊，研擬「交通部臺灣鐵路管理局員工減重暨健康管理計畫書【亮麗一夏、享受幸福】」，提供各單位作為實施員工健康管理之參考，並開啟健康職場之風氣，導引員工重視健康及養成自我控制之習慣，強化企業競爭力及減少職災。

(2) 為增進員工身心健康暨減少職業災害發生，本局依「交通部臺灣鐵路管理局員工減重暨健康管理計畫書【亮麗一夏、享受幸福】」函請13個地區勞工教育推行小組，自100年6月起增開「減重暨健康管理班」，鼓勵具體重風險員工踴躍參與，並聘請各地縣市政府衛生單位或醫療院所提供關於體重控制、新陳代謝及新血管疾病等相關知識之講師，以專題講座之方式，促使員工自主管理，全局參加人數合計329人。



減重暨健康管理班上課情形
Having fun in 'Weight loss and health management' classes

愛戀臺鐵—發現幸福之旅未婚聯誼活動

於100年7月9日（星期六）假新北市鶯歌、三峽地區舉行，共計40人報名參加。團康遊戲經精心設計，饒富趣味並兼具肢體互動效果，使整個活動內容活潑熱情、緊湊無冷場，透過自然而然的親密互動，讓參與的團員們玩得相當盡興，並製造來電的感覺和英雄救美的機會，參與的團員大為稱許本局舉辦此活動極為「物超所值」，若與其他機關舉辦之活動相比，本次活動整體而言更為用心。活動結束後，團員間彼此亦透過臉書（Facebook）互相聯繫交流，頗具成效。



美味美好之愛的饗宴 Delicious banquet



報紙遊戲讓帥哥美女們緊緊相依
The newspaper game bringing attendees closer together

made transfers more convenient. In addition, TRA has improved inter-city transportation services for transfers between the eastern and western lines. TRA promoted a seamless transportation network by integrating E-ticket systems with the MRT and private and public bus services. TRA also worked with THSR and the MRT to integrate timetables and information systems. TRA broadened its sales strategies with membership-based systems, and TRA built alliances across industries to promote railway tourism, build customized tour groups and increase revenue. TRA used available assets to develop tourism lifestyle services to enhance its subsidiary business operations, reform financial situation and reduce operational losses. The 2011 passenger volume and revenue were as high as pre-THSR levels. Revenue from train passengers increased by NT\$951 million from 2010 and the passenger volume increased by 8.47%, showing the results of TRA's efforts to increase revenue and reduce expenditures.

TRA worked to abide by and implement international accounting standards

Continued to build an integrated accounting management information system to improve TRA's overall management of operations and decision-making quality. This system would be created based on accounting methods—measuring operating costs, management systems, life cycle costs, quality costs, target costs, and etc.—to provide immediate feedback on operations for all departments and allow them to share and exchange information. This would simplify accounting work and shorten the time required as well as increase its accuracy and bring creativity and a spirit of competition to the task. This integrated system would cover accounting for all operational areas of TRA including: operations and business management, distributions management, transportation budgeting, basic project management, and, etc.

Used various public opinion surveys

To investigate business losses and formulate appropriate measures to put the "customer first" service attitude into practice.

5. Personnel management

New employees forum of TRA

TRA hosted a forum for new employees at the end of the year. Participants were randomly selected with a total of 60 new employees in attendance. The forum helped TRA express its concern for TRA employees and to see how they have adjusted to the working environment. Participants took the opportunity to interact with other new employees and form a more cohesive and united work force. " This forum helped TRA express its mission, vision, value and strategic goals and allowed new employees to join together and accomplish goals

Weight loss and health management classes

- a. TRA participated in "101 tips for healthy weight loss for a prosperous Taipei" held by Taipei City Department of Health. It also advocated lifelong learning and improved the lifestyle choices of the labor pool for a safer transportation environment. TRA also made the "Bright Summer, Enjoy Life-MOTC TRA Management Committee's Employee Weight Loss and Health Management Plan" based on authoritative information sources like the Taiwan Healthy Weight Management Association website and the Department of Health food nutritional information website. TRA employees were encouraged to take their health into their own hands to make a more competitive organization with fewer occupational injuries.
- b. TRA implemented the "Bright Summer, Enjoy Life- MOTC TRA Management Committee's Employee Weight Loss and Health Management Plan." In June of 2011, TRA invited 13 local Worker Education Implementation Team to hold "Weight loss and health management classes". TRA encouraged employees in high-risk weight groups to attend. TRA invited officials from local government health departments and medical professionals to provide informational lectures on weight control, metabolism and heart disease. A total of 329 TRA employees participated in these seminar-style classes.



搶答遊戲中 Quiz-based game



分組踩汽球遊戲
Broken into groups and stepping on balloons



(六) 資訊作業

- (1) 配合個人資料保護法，建置防資料漏失系統（DLP）。
- (2) 協助辦理臺北車站票房遷移作業。
- (3) 臺鐵會員服務系統於100年3月30日上線使用。
- (4) 持續優化票務系統，以支援多元化行銷及跨業協同合作。
- (5) 積極辦理國際會計準則（IFRS）接軌作業，達成101年度雙軌開帳。
- (6) 整合地理資訊，E化本局國有財產及託管不動產管理。
- (7) 建置重大施政計畫管理系統，支援本局購置汰換車輛、安全提升及機廠遷建等計畫專案管理。
- (8) 導入中央氣象局劇烈天氣監測系統（QPESUMS），整合強化本局行車保安、防災救災之應變能力。

(七) 專業人力培訓

為推動顧客滿意經營理念，提供社會大眾安全、準確之鐵路運輸服務及多角化經營發展等，必須積極培育各種專業人才，使本局永續經營發展。因此，除由員工訓練中心專責辦理在職員工之鐵路專業、風險管理與工作知能教育訓練，新進人員之職前教育訓練，及適時配合各業務單位設備更新、業務改善、制度改革等，在工作現場實施教育訓練外，並遴選具有發展潛力之員工，參加學術機構或公、民營訓練機構之進修、研討或訓練。

為提升工程品質管理效能，員工訓練中心於98年經行政院公共工程委員會核准為「公共工程品質管理訓練班」代訓機構。本訓練班主要目的為灌輸臺鐵工程人員品質管理系統之新知，預防工程缺失之發生，提升公共工程施工品質。參訓學員受訓成績及格者，由行政院公共工程委員會核發合格證書，截至100年底共計訓練265人次，合格人數246人，合格率93%。

員工訓練中心100年共計開辦123班次，訓練6,303人次，58,897人日，詳細分述如下：

■ 儲備人員專業訓練

共計開辦11班，訓練513人次，22,794人日。班別如下：

運輸班、調動機駕駛員班、司機員班、工程維修車司機及指揮員班、電車線維修車指揮員班、車輛檢查班、勞工安全衛生管理員班等。

■ 知能補充訓練

共計開辦100班，訓練4,690人次，20,363人日。班別如下：

第一線服務人員講習班、服務理念及禮儀訓練班、運轉班、路線實務班、土木建築實務班、車輛維修班、車輛車軸非破壞檢測班、機務運轉指導幹部班、品管圈活動基礎訓練班、光纜及高遮蔽電纜接續測試訓練班、電車線維修車司機員及指揮員複訓班、號誌技術基礎班、號誌技術進階班、號誌風險管理班、電車線技術班、採購專業基礎人員訓練班、材料管理班、價值工程研習班、公共工程品質管理班、丙種勞工安全衛生業務主管訓練班、甲種勞工安全衛生業務主管訓練班、勞工安全衛生在職教育訓練、急救人員安全衛生在職教育訓練班、公文系統登記桌作業、公文系統檔案管理作業班、公文製作基礎班、資通安全聯絡人講習班、票務系統資料倉儲（DWH）簡介、主管人員資訊班、電子差勤車班組排班系統班、電子差勤排班人員班、電子差勤管理班、工會幹部研習班、臺鐵文化志工班、國有財產管理及資產活化研習班、出租及委託經營案件履約管理班、站車英語會話班、中高階主管職務管理核心能力班、Pemis2K人事管理資訊系統操作訓練班、人事資訊管理系統班、交通事業人員士級升佐級資位訓練班、交通事業人員佐級升員級資位訓練班等。

■ 職前訓練

99年鐵路特考新進人員（高員級、員級、佐級）專業研習班、100年鐵路特考新進人員（高員級、佐級）專業研習班，共計開辦12班，訓練1,100人次，15,740人日。

(八) 提升勞工安全與衛生

- 1、臺中運務段、臺中工務段、工務養護總隊、彰化機務段、彰化檢車段、彰化電力段、彰化電務段、新竹機務段、新竹電力段、臺北工務段、宜蘭工務段、電訊中心、宜蘭機分段、宜蘭電力段、臺北檢車段、七堵機務段、臺北電務段、臺北電力段、臺北運務段、宜蘭運務段等20個單位於100年通過TOSHMS及OHSAS18001驗證，其中臺中運務段等9個單位於100年10月21日由局長主持授證典禮。

| Loving TRA – Finding happiness: an activity for singles

On July 9, 2011, TRA held an elaborately designed activity for single TRA employees at Yingge and Sanxia areas. A total of 40 employees attended this games-based activity. All games were elaborately designed with fertile interesting and physically interactive effects. The event was heralded by one and all as a "priceless" memory. Attendees were able to keep in touch using Facebook and the event was considered highly successful.

6.Information Processing Work

- a. Established database leak protection (DLP) system in accordance with personal information privacy laws.
- b. Assisted in the relocation of ticket windows at Taipei Main Station.
- c. Launched the TRA membership system on March 30, 2011.
- d. Continued improvements to ticketing system, explored diverse ticket sales channels and increased cross-industry alliances.
- e. Integrated International Financial Reporting Standards (IFRS) and double-entry bookkeeping system will go into operation in 2012.
- f. Integrated geographical information and began electronic management of TRA's state-owned property and real estate held in trust.
- g. Implemented the administrative policy management system to help TRA manage the plans for procurement and replacement of trains, safety improvement and workshop relocation.
- h. In accordance with the Quantitative Precipitation Estimation and Segregation Using Multiple Sensors (QPESUMS) system of Central Weather Bureau, TRA strengthened its overall train safety, disaster prevention and disaster relief response capabilities.

7.Specialized Personnel Training

To promote customer satisfaction and provide the public with safe, punctual and innovative transportation services and to diversify its business operations, TRA must actively train its employees in specialized technical fields and operations management. In addition to on-the-job trainings in specialized skills, knowledge and risk management in the Staff Training Center, new employee acclimatization and trainings conducted in conjunction with equipment upgrades, service improvements or systemic reforms, TRA selects employees with high potential to take part in advanced studies, seminars or trainings.

To increase the effectiveness of quality control in construction and engineering projects, TRA Staff Training Center was authorized by the Executive Yuan's Public Construction Commission to hold "Public Construction Quality Control Training Courses" in 2009. Employees with passing grades receive a certification from the Executive Yuan's Public Construction Commission. At the end of 2011, TRA has trained a total of 265 employees with 246 receiving passing grades, a 93% pass rate.

The Staff Training Center held a total of 123 courses in 2011 for 6,303 employees over 58,897 work days. This is broken down as follows :

| Specialized training courses for reserve personnel

A total of 11 classes were held for 513 employees over 22,794 work days. Classes included: transportation courses, shunting train driver courses, driver courses, engineering and maintenance courses for drivers and conductors, and etc.

| Additional knowledge and skills courses

A total of 100 classes were held for 4,690 employees over 20,363 work days. Classes included: Frontline service personnel workshops, service philosophy and courtesy training courses, operations courses, practice route courses, civil engineering and architecture practice courses, train maintenance courses, non-destructive inspection of train axle courses, operations and maintenance leadership courses, quality of control basics activity courses, fiber optic cable and high-shielded cable connection test courses, train power line repair refresher courses for conductors and drivers, basic technical courses on signals, advanced technical courses on signals, signal risk management courses, train power line technical courses, procurement basics professional courses, materials management courses, value engineering study courses, public construction quality control management courses, employee sanitation management secondary training courses, employee sanitation management primary training courses, employee safety and sanitation on-the-job education courses, emergency staff safety and sanitation on-the-job training courses, documentation and registration table tasks, documentation system file management courses, and ect.



- 2、交通部「100年度推動勞工安全衛生優良公共工程選拔推薦工程評選小組」暨「工程施工查核小組」於100年7月11日蒞臨評審「臺北機廠遷建計畫－富岡基地（CL651-1標北湖口進廠線及車站整地工程暨CL651標北湖口進廠線及車站工程）」，並獲推薦參加行政院勞工委員會舉辦之「100年推動勞工安全衛生優良公共工程及人員選拔」。
- 3、本局嘉義工務段主辦之「環島鐵路整體系統安全提升計畫（鹽水溪橋改建工程－土建部分）」參加行政院勞工委員會舉辦之「100年推動勞工安全衛生優良公共工程及人員選拔」榮獲「入圍」，並於12月9日由徐副總工程司領隊參加授頒獎典禮。



資產管理及資產活化

為因應環境變遷，積極運用交通建設與資產開發結合之利基，以發揮最大公共利益，本局透過資產開發及附屬事業經營等機制，依循促參法、都市更新條例及都市計畫公共設施用地多目標使用辦法等法令，配合政府鐵路建設計畫、行政院加速推動都市更新方案及地方政府都市發展計畫，辦理各項開發案。

（一）促參業務

■ 已簽約案

- (1) 臺北車站特定專用區交九用地開發經營案。
簽約日期：2004.12.27 特許期限：50年。
- (2) 南港車站大樓興建營運案。
簽約日期：2006.12.11 特許期限：50年。
- (3) 松山車站綜合大樓暨立體停車場大樓民間參與興建營運案。
簽約日期：2007.05.15 特許期限：52年。
- (4) 萬華（東、西）車站大樓民間參與興建營運案。
簽約日期：2009.03.10 特許期限：54年。
- (5) 板橋車站大樓商業樓層民間參與整建營運案。
簽約日期：2009.04.01 特許期限：16年。
- (6) 臺北車站1、2樓及地下1樓商場營運案。
簽約日期：2006.12.25 特許期限：12年。
- (7) 板橋車站特定區（特專二）國際觀光旅館興建營運案。
簽約日期：2010.08.23 特許期限：50年。
- (8) 新左營車站旅運服務空間民間參與整建營運案。
簽約日期：2011.11.14 特許期限：13年。

■ 規劃招商案

- (1) 三支線民間參與整建營運案。
- (2) 舊山線鐵道復駛及民間參與整建營運案。
- (3) 花蓮市六期重劃旅館區興建營運案。
- (4) 民間參與彰化車站扇形車庫古蹟保存區及周邊地區興建營運案。
- (5) 苗栗鐵道文物展示館促參建設營運案。

（二）都市更新業務

■ 政府規劃案

- (1) 蘭城之星都市更新開發案。
- (2) 基隆火車站暨西二西三碼頭都市更新案。
- (3) 臺北車站特定專用區E1、E2區都市更新案。

I Pre-service training for new employees

A total of 12 classes were held for 2010 and 2011's newly accepted TRA employees (high-level, clerical and rank and file). A total of 1,100 employees were trained over 15,740 work days.

8.Improving employee health and safety

- A. In 2011, a total of 20 divisions passed TOSHMS and OHSAS180001 certification including: Taichung transportation department, Taichung construction department, the public works maintenance task force, Changhua train inspection department, Changhua electrical power department, Changhua electrical department, Hsinchu rolling stock department, Hsinchu electrical power department, Taipei construction department, Yilan construction department, the telecommunications center, Yilan mechanical division department, and etc. transportation department. Taichung transportation department and 8 other departments attended the certification ceremony hosted by the Director General Fanon October 21, 2011.
- B. The "Construction Project Auditing group" and the "MOTC 2011 Promoting Employee Safety and Sanitation in High-Quality Public Works Selection Group" selected the "Taipei Workshop Relocation Project – Fugang Base (CL651-1 Beihukou workshop entrance and construction and CL651 Beihukou workshop entrance and construction)" to be entered into "2011 Selections of Projects and Employees that Promote Employee Safety and Sanitation in High-Quality Public Works" held by the Council of Labor Affairs of Executive Yuan.
- C. The TRA Chiayi construction department's "Nationwide rail system safety improvement plan (civil engineering portion of the Yanshui river bridge reconstruction)" was selected as one of the Executive Yuan's Council of Labor Affairs' "2011 Selections of Projects and Employees who Promote Employee Safety and Sanitation in High-Quality Public Works." On December 9, Vice-President Xu, the leader of the engineering division, attended the awards ceremony.

Property Management and Active Utilization

TRA has found its niche in doing transportation construction projects integrated with asset development efforts for the greatest public benefit. TRA has developed assets and subsidiary businesses in accordance with laws promoting private participation in public construction projects, urban renewal policies and urban planning laws requiring multi-purpose public land and facilities. TRA develops projects in conjunction with government specified railway construction plans, urban renewal projects accelerated by the Executive Yuan and urban development projects for local city governments.

1.Promoting Private Participation in Public Construction Projects

I Contracts already signed

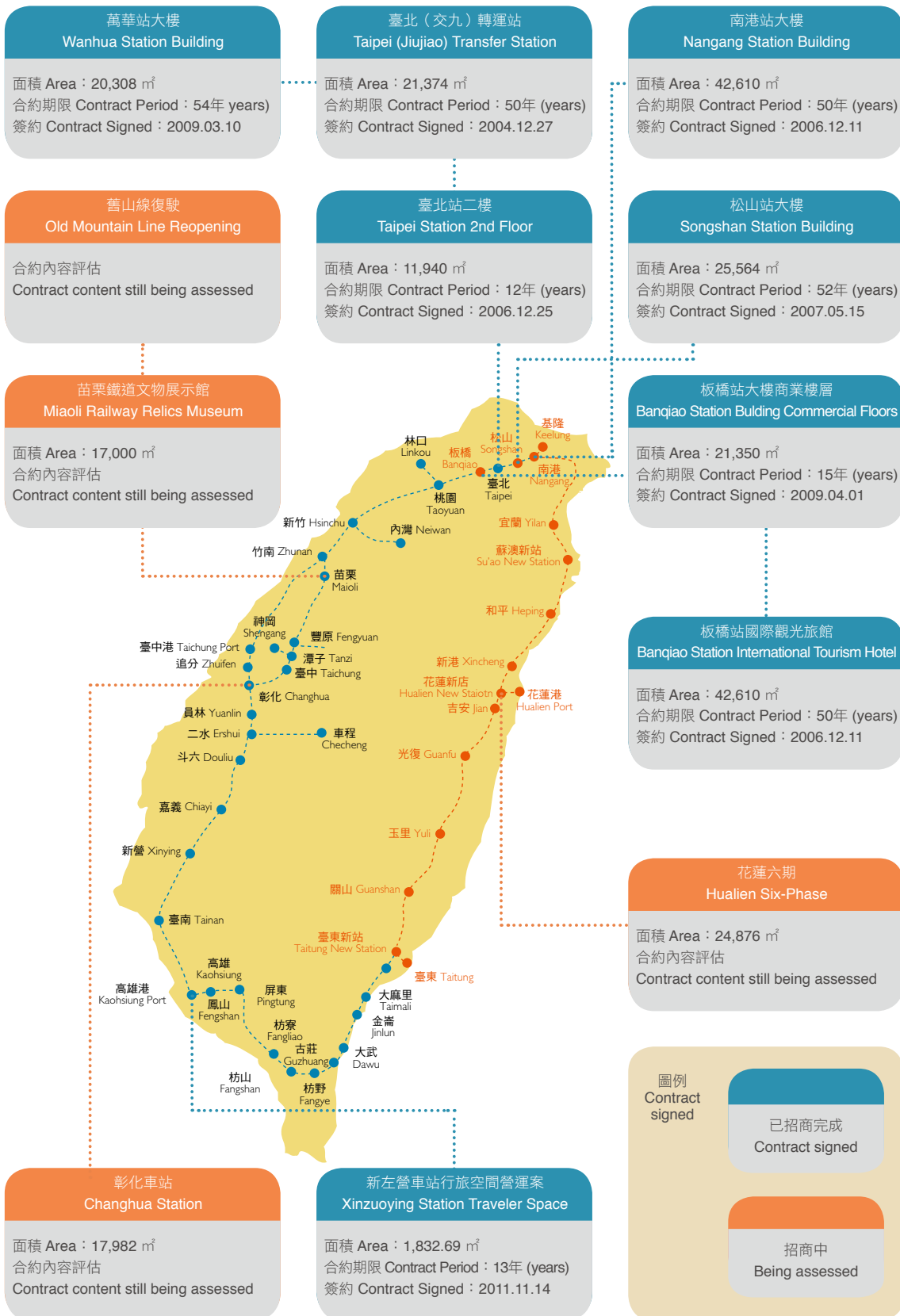
- a. Taipei Main Station Jiujiao Area Commercial Development Project.
Contract signed: 12.27.2004 Contract period: 50 years.
- b. Nangang Station Building BOT Project.
Contract signed: 12.11.2006 Contract period: 50 years.
- c. Songshan Station Mixed Use Building and Standing Parking Lot Private Participation BOT Project.
Contract signed: 05.15.2007 Contract period: 52 years.
- d. Wanhua (East and West) Station Building Private Participation BOT Project.
Contract signed: 03.10.2009 Contract period: 54 years.
- e. Banqiao Station Building Commercial Floors Private Participation ROT Project.
Contract signed: 04.01.2009 Contract period: 16 years.
- f. Taipei Main Station B1, 1F and 2F Commercial Space OT Project.
Contract signed: 12.25.2006 Contract period: 12 years.
- g. Banqiao Station Designated Area (Area 2) International Tourism Hotel BOT Project.
Contract signed: 08.23.2010 Contract period: 50 years.
- h. Xinzuoqing Station Passenger Service Space Private Participation ROT Project.
Contract signed: 11.14.2011 Contract period: 13 years.

I Currently in bidding process

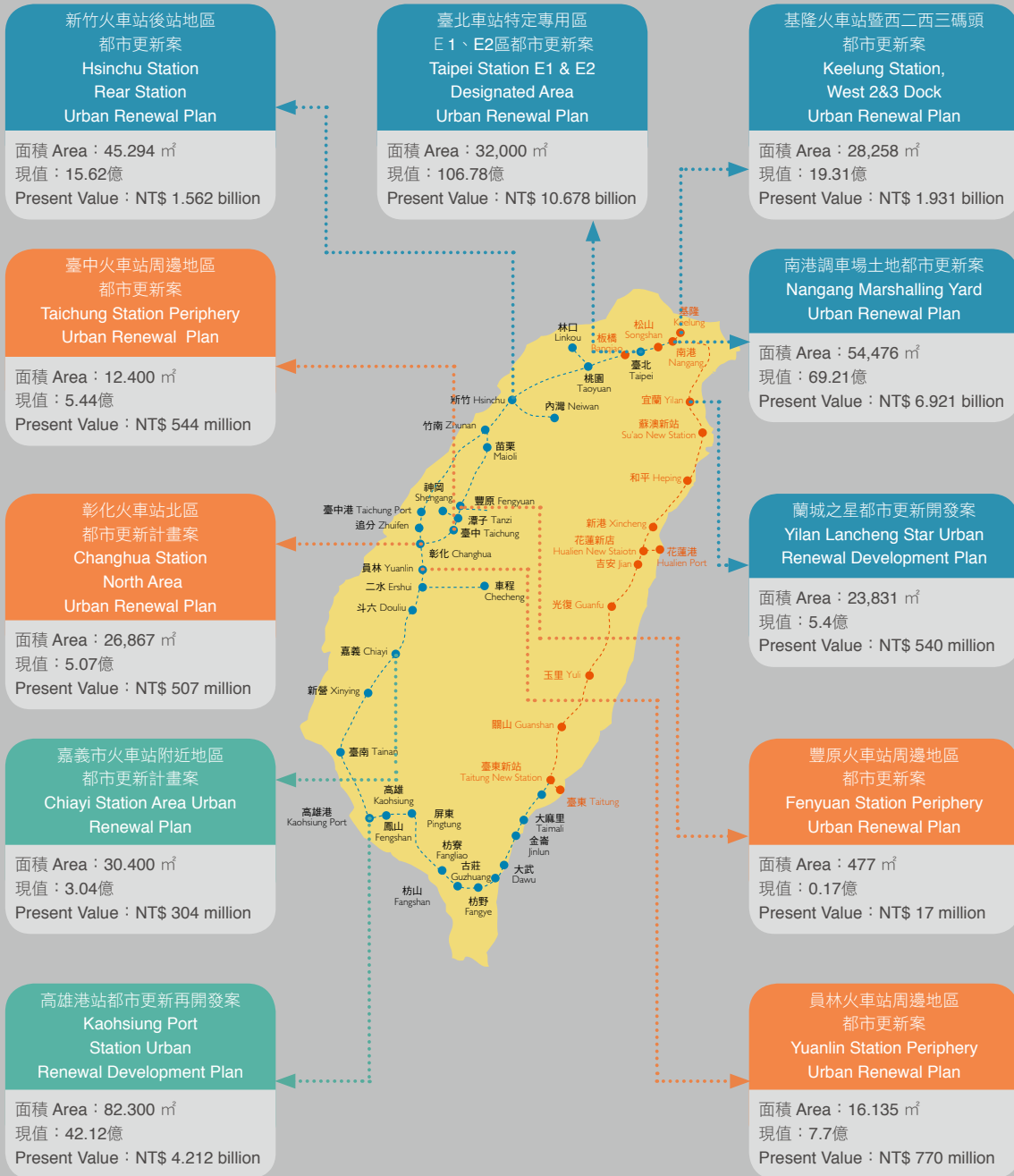
- a. Sanzhi Line Private Participation ROT Project.
- b. Old Mountain Line Railway Renovation and Private Participation ROT Project.



促參業務 Promotion of Private Participation in Projects



都市更新 Urban Renewal Projects Underway



| 區位 Region | 件數 Number | 面積 (m ²) Area | 公告現值 (億) Assessed Present Value (NT\$ hundred million) |
|--------------|--------------|------------------------------|---|
| 北部 North | 5 | 183.859 | 216.32 |
| 中部 Central | 4 | 55.879 | 18.38 |
| 南部 South | 2 | 112.700 | 45.16 |
| 合計 Total | 11 | 352.438 | 279.86 |



- (4) 南港調車場土地都市更新案。
- (5) 新竹火車站後站地區都市更新案。
- (6) 臺中火車站周邊地區都市更新案。
- (7) 豐原火車站周邊地區都市更新案。
- (8) 彰化火車站北區都市更新計畫案。
- (9) 員林火車站周邊地區都市更新案。
- (10) 嘉義火車站附近地區都市更新案。
- (11) 高雄港站都市更新再開發案。

■ 民間自提案

除上述都市更新案件外，本局參與民間自提都市更新案，目前正進行事業計畫規劃或權利變換或協調分配土地及建築物作業。有臺北市大同區雙連段一小段、臺北市中山區正義段三小段、臺北市中山區正義段一小段、臺北市大安區懷生段一小段、新北市新店區碧潭段及高雄市三民區大港段七小段等多筆都市更新案。

■ 場站多目標使用

- (1) 鶯歌站、羅東站、高雄臨時站、汐止站及「臺中車站站區」等已辦理出租經營
- (2) 已改建完工啟用之後龍站、斗六站及施工或規劃中的楊梅站、竹南站、苗栗站、新烏日站、湖口站、北湖口站、新豐站及楊梅站等，均依場站多目標使用原則辦理。

■ 不動產開發前置規劃作業

為利土地資產活化及管理之先期規劃與效益評估，截至100年底，已陸續完成「資產總體利用及管理目標、策略報告」、「具開發效益資產活化、開發、營運研析規劃」、「資產管理及應用資訊擴充建置建議方案」、「高雄機廠資產開發評估報告」、「臺南車站資產開發評估報告」、「北投員訓中心資產開發評估報告」、「花蓮市六期重劃區資產開發評估報告」等，並辦理「資產活化及管理總顧問」委託技術服務案。

另為辦理都市計畫變更、都市更新權利變換及招商作業，100年起陸續辦理「臺北機廠及毗鄰工業區土地都市計畫變更案」、「臺北車站特定專用區（E1、E2及D1西半街廓）都市更新整體規劃」、「高雄機廠遷建後土地開發策略規劃暨都市計畫變更」、及「臺中都會區鐵路高架車站、高架橋下空間及新北市汐止車站站區更新再發展規劃暨多目標使用申請作業」等委託技術服務案。

■ 加強資產合理經營管理

為促進鐵路立體化建設土地清理活化，研擬完成「交通部臺灣鐵路管理局鐵路立體化計畫都市土地運用規劃」，經行政院99年4月23日國有土地活化督導小組第4次會議結論認定「本案提報資料呈現鐵路立體化之全貌及臺灣鐵路管理局於管理土地之核心價值及具體貢獻」。

為利資產加值（如TOD（Transit-Oriented Development，大眾運輸導向發展）規劃、都市計畫變更、容積調配與移轉、都市更新等）與資產保值（如降低回饋比例、鐵道文化資產最適保存、公共設施提供與維護、促參建設等），臺鐵刻研析整體資產活化執行策略，以改善財務狀況及挹注



- c. Hualien City Rezone Hotel District in Six Phases BOT Project.
- d. Changhua Station fan shaped depot Heritage Preservation Site and Surrounding Areas Private Participation BOT Project.
- e. Miaoli Railway Museum Private Participation BOT Project.

2. Government Projects

■ Contracts already signed

- a. Lancheng Star Urban Renewal Project.
- b. Keelung Train Station and 2West and 3West Docks Urban Renewal Project.
- c. Taipei Main Station Designated Areas E1 and E2 Urban Renewal Project.
- d. Nangang Towing Yard Urban Renewal Project.
- e. Hsinchu Train Station Rear Station Urban Renewal Project.
- f. Taichung Train Station Surrounding Areas Urban Renewal Project.
- g. Fengyuan Train Station Surrounding Areas Urban Renewal Project.
- h. Changhua Train Station North Area Urban Renewal Project New Plan.
- i. Yuanlin Train Station Surrounding Areas Urban Renewal Project.
- j. Chiayi Train Station Surrounding Areas Urban Renewal Project.
- k. Kaohsiung Port Station Urban Renewal Project.

■ Private projects

In addition to the government urban renewal projects listed above, TRA also partners with private businesses for urban renewals projects. The projects are all in planning, rights transfer or land and construction materials distribution phases. The urban renewal projects are as follows: 1 section in Taipei City Tatung district Shuanglian section, 3 sections in Taipei City Zhongshan district Zhengyi section, 1 section in Taipei City Zhongshan district Zhengyi section, 1 section in Taipei City Daan district Huaisheng section, and 7 sections in New Taipei City Hsindian district Bitan section and Kaoshiung City Sanmin district Dagang section.

■ Multi-purpose stations

- a. Rental operations have begun at Yingge , Luodong station, Kaohsiung temporary station, Xizhi station and "Taichung station area".
- b. The following stations will be developed to be multi-purpose stations: Houlong and Douliu stations, for which renovations have completed, and Yangmei, Zhunan, Miaoli, Xinwu, Hukou, Beihukou and Xinfeng stations, which are currently being planned or under construction.

■ Real estate development planning and preparation

For preliminary planning and profit estimates during asset utilization and management efforts, TRA had, by the end of 2011, completed the following reports: "Report on the Purpose and Strategy of Overall Property Usage and Management," "Analysis and Planning for Active Utilization, Development and Operation of Assets with Development Potential," Suggestions on the Expansion of Asset Management and Application Information",and etc. In addition, TRA implemented the "Asset Active Utilization and Management Consultant" plan to commission a special technical consultant.





營收，並達到永續經營為目標；為利資產管理作業之E化，本局於100年完成第1期資產管理及運用資訊系統，涵括不動產產籍、宿舍、與建物占用、租售、開發等項目之管理、更新、檢核、分析等功能，並預計101年起再擴充至動產及設施設備之管理，以達到資產管理最佳效益，資料最確實可靠為目標。

■ 資產管理利用

- (1) 本局目前經管之土地資產約計44,204筆，面積約計5,307公頃，按100年公告現值計約6,289億元。
- (2) 本局經管被占用土地處理，經檢討符合「本局經管公用不動產出租及利用作業要點」者，積極辦理出租作業；經檢討不符合「本局經管公用不動產出租及利用作業要點」承租者，或仍有業務使用需要者，依法提起訴訟排除。
- (3) 處分情形：
 - ① 本局配合國家重大交通建設及地方政府都市計畫更新需要，由各公務機關依規定辦理有償撥用土地，計得款新臺幣3.78億元。
 - ② 本局100年度標、讓售新竹縣新竹市武陵段1-10地號等國有土地，計得款新臺幣8.8億元。

■ 宿舍處理業務

- (1) 眷屬宿舍收回：

行政院92年12月10日訂定「中央各機關學校國有眷舍房地處理要點」，位於都市計畫住宅區、商業區、工業區或非都市土地編定為甲、乙、丙、丁種建築用地之國有「眷屬宿舍」合法現住人95年12月31日前得申請騰空標售、現狀標售、已建讓售方式辦理，逾95年12月31日者，通知其於三個月內返還，如拒不返還，應依法訴追，並提返還不當得利之訴；位於處理範圍外之眷舍，依行政院74年5月18日臺七十四人政肆字第14927號函規定，准予續住至宿舍處理時為止。

- (2) 收回處理情形：

- ① 截至100年12月底經管宿舍總戶數3,007戶，已收回計2,058戶，未收回949戶（使用中773戶、非法占用176戶）。為利資產活化，對於已收回之宿舍，因目前臺北市區停止標售，以參與都市更新為主，在都市更新辦理前，則以短期出租或暫時作出租停車場使用。
- ② 未收回宿舍中非法佔用戶計176戶，較99年12月底減少被占用95戶，將廣續辦理被占用宿舍排除事宜。資產管理及資產活化。



TRA conducted urban planning modification, urban renewal rights transfer and bidder solicitation projects. In 2011, TRA had conducted the following projects: "Taipei Railway Workshop and The Land around Industry Area Urban Planning Modification Proposal," "Taipei Main Station Designated Areas (E1, E1 and D1 western portion hallway) Urban Renewal Overall Plan", Kaohsiung Railway Workshop Post-Relocation Land Development Strategy and Urban Planning Modification Plan" and ect.

I Enhance efficiency of property operation and management

To advance utilization of land for the construction of elevated and underground railways, TRA formulated the "Urban Land Usage Planning for Three-Dimensional Railway Conversion Plan of the Taiwan Railway Administration, MOTC". After its 4th meeting of the Executive Yuan's State Land Usage Supervision Subcommittee on April 23, 2010, it was concluded that "the data presented for this projects represents a full view of the move to underground and elevated railways and the Taiwan Railway Administration's core values and concrete contributions to the land management".

In the interest of adding value of property (such as transit-oriented development planning, urban planning amendments, capacity adjustment, deployment or transfer as well as urban renewal) and maintaining the value of property (such as decreasing the rate of feedback, best preservation of railway cultural assets, and etc), TRA made a detailed analysis of the strategy for implementing full property utilization, in order to improve its financial standing and put resources into operations, as well as to achieve the goal of sustainable operation. In 2011, TRA implemented phase 1 of its plan to computerize asset management efforts with the asset management and operation information system. It is expected that in 2012, the system will be broadened to include movable property and equipment to arrive at the best asset management results and the most accurate and reliable records.

I Asset management and utilization

- a. TRA currently manages 44,204 parcels of land totaling 5,307 hectares in area. The 2011 official value of this land was NT\$628.9 billion
- b. With regard to entities occupying TRA land, those who fall within the "TRA State-Owned Real Estate Rental and Usage Guidelines" should actively apply to rent the land. Those that do not fall within the guidelines or those who are using the land for business purposes will be removed through lawsuits.
- c. Asset disposal and division:
 - ① In accordance with major national transportation construction projects and local government urban renewal, TRA applied through the appropriate public offices for compensated land allocations for total proceeds of NT\$378 million.
 - ② In 2011, TRA auctioned off the state-owned land at Hsinchu County Hsinchu City Wuling section parcels 1-10 for total proceeds of NT\$880 million.

I Staff Dormitory Recovery

- a. Recovery of dormitories for residents with dependents
On December 10, 2003, the Executive Yuan published the "Guidelines for Central Government Organizations and School to Process State-Owned Dormitories for Residents with Dependents". These guidelines rated land located in residential areas, commercial areas, industrial areas or outside of city limits as excellent, good, decent or bad. Those living lawfully in these dormitories were to apply before December 31, 2006 to process the dormitories through an auction. Those that missed the deadline were given three months notice to return the properties. Those that refused were sued under court of law for unjust enrichment. Dormitories outside of the processing scope are under the May 18, 1985 Taiwan 74 Human Affairs Regulation 14927 and will be allowed to continue living in the dormitories until the processing date.
- b. Status of recovery efforts
 - ① As of the end of December 2011, a total of 3,007 dormitories under TRA management, 2,058 of which had been recovered and 949 (773 in use, 176 illegally occupied) of which had not. Auctions have been discontinued in Taipei and urban renewal projects are planned. In the interest of active utilization of assets, TRA is renting its properties out for short periods or as temporary parking spaces until the urban renewal projects commence.
 - ② There were 176 illegally occupied dormitories among the unrecovered units, a decrease of 95 units from 2010. TRA will continue its efforts to recover these dormitories.



冬山站 Dongshan station



重大工程及投資建設

Major Engineering Projects and Investments

環島鐵路整體系統安全提升計畫

Nationwide Railway Safety Enhancement Project

臺北機廠遷建建設計畫

Taipei Railway Workshop Relocation and Construction

臺鐵都會區捷運化桃園段高架化建設計畫

TRA Rapid Transit Systematization in Metropolitan on the
Taoyuan Section of Elevated Track Project

臺鐵都會區捷運化暨區域鐵路後續建設計畫（基隆－苗栗段）

TRA Rapid Transit Systematization in Metropolitan Area and
Regional Railway Follow-up Construction Project (Keelung –
Miaoli Section)



環島鐵路整體系統安全提升計畫

(一) 計畫內容

為強化臺灣地區軌道運輸系統功能，提高全國民眾對大眾運輸工具之使用率，經建會於98年審議通過「環島鐵路整體系統安全提升計畫」，自98年至101年，分4年辦理「車站整體更新工程」、「橋樑更新工程」、「隧道檢測及更新工程」、「潛在高風險脆弱路段強化工程」、「軌道結構強化」、「危險路段安全圍籬設施工程」、「通訊及號誌系統可靠度提升」、「電力系統更新」、「車輛動力機電系統更新」等9個分項計畫，總經費為149.49億元。

(二) 執行成果

100年度主要辦理內容包括：車站建築及服務設施更新、橋隧基礎結構物改良、站場及路線可靠度提升及機電設施可靠度提升。

■ 完成山佳跨站式站房新建工程

舊站體為三級古蹟，為呼應古蹟保存，並配合在地優質山水，於原站址南側新建跨站式站房，站體採輕量化設計。跨站式站房於100年9月20日落成啟用，符合綠建築標準，站內劃設商業空間，以活化多功能使用目標，增加旅客乘車之便利性。

■ 完成臺中線大甲溪橋樑基換底工程

臺中線大甲溪橋於85年興建完成，歷經921大地震後河道沖刷情形加劇嚴重，導致基礎持續加深裸露，危及行車安全，亟需改建補強。經克服施工困難，於100年6月30日完成本局第一座換底工程。

■ 完成集集線復駛通車

集集線沿線7座老舊隧道，歷經921大地震，隧道內壁多處龜裂且漏水嚴重，為避免影響行車安全，辦理列車停駛進行隧道整修加固、加大淨空；同時進行沿線鋼梁橋改建工程，全線已於100年7月9日通車復駛。

■ 完成彰化跨站天橋

提升彰化站前後站往來便利性，深具都市縫合意義。

■ 更換長焊鋼軌

完成長焊鋼軌50公里、鋪設34套PC枕型道岔，以強化軌道結構，延長軌道材料使用年限，降低保養維修成本。

■ 完成車輛動力系統更新49輛；平交道遠端監控系統400處



完成集集線復駛通車
Completed renovation on Jiji Line



完成彰化跨站天橋
Completed elevated bridge at Changhua station

Round-Island Railway System Safety Upgrading Project

1. Contents of Project

To strengthen the functionality of railway transportation system in Taiwan and to increase usage of mass transportation, the Council for Economic Planning and Development passed the 2009 "Nationwide Railway Safety Enhancement Project". From 2009 to 2012, TRA will be implementing 9 initiatives including: "station overall renovation", "bridge renovation", "tunnel inspection and renovation", "fortification of potentially dangerous track sections," "fortification of rail structures", "safety fences in dangerous track sections", "enhancement of the reliability of signaling and communications system", "renovation of electrical system" and "renovation of train power electrical system." The total cost will be NT\$14.949 billion.

2. Project achievements

In 2011, the primary initiatives were: renovation of station structures and service facilities, basic structural improvements to bridges, raising the reliability of stations and rails and raising the reliability of electrical and mechanical equipment.

Completion of Shanjia elevated station construction

The old Shanjia station was a level-3 heritage site, TRA constructed an elevated station on the south side of the original station using lightweight construction materials. The station was operational on September 20, 2011 and is a certified green building. The station interior has a commercial space to meet the goal of active utilization of assets and provide convenience to passengers.

Completion of Dajia River Bridge foundation replacement construction in Taichung Line

Dajia River Bridge in Taichung Line was constructed in 1996. After the September 21st earthquake, the bridge posed a danger to passengers and was badly in need of repair. On June 30, 2011, TRA completed the difficult operation of replacing the bridge's foundation.

Completion of Jiji Line's renovation

Seven old tunnels on the Jiji Line suffered heavy cracking and leaking after the September 21st earthquake, TRA repaired steel girder bridges on the Jiji Line. The renovation efforts were completed on July 9, 2011 and Jiji Line was operational again.

Completion of elevated bridge at Changhua Station

This project increased convenience between the front and rear areas at Changhua Station and heightened the urban complex aspect of the station.

Replacement of long welded rails

TRA completed 50 km of long welded rail replacement and laid 34 sets of PC turnout sleepers to fortify the railway, increase its durability and decrease maintenance costs.

TRA completed upgrades on power train systems for 49 trains and installed remote-controlled level crossing system at 400 locations



完成山佳跨站式站房新建工程
completed Shanjia elevated station



完成臺中線大甲溪橋橋基換底工程
Completed foundation replacement for Dajia River Bridge in Taichung Line



臺北機廠遷建建設計畫

(一) 計畫內容

- 1、改善七堵基地現有路線及設備。
- 2、興建富岡基地1座。
- 3、規劃設計蘇新基地1座。

(二) 執行成果

富岡車輛基地自100年1月5日陸續開工，今年度全面推動，現所有廠房鋼結構幾乎全部完成，接著進行外牆彩鋼、室內裝修等工作。

臺鐵都會區捷運化桃園段高架化建設計畫

(一) 計畫內容

本計畫奉行政院98年2月27日院臺交字第0980000793號函核定辦理，總經費308.45億元，計畫期程自98年1月1日至106年12月31日止。主要內容包含：

- (1) 鐵路降挖段及高架段合計15.95公里，其中桃園站以北擴建為三軌正線，桃園站以南為二軌正線。
- (2) 桃園站、內壢站、中壢站改建為高架車站。
- (3) 增設鳳鳴站、國際路站、永豐路站、中原大學站等4座通勤車站。
- (4) 其他設施同時配合辦理改善，工程完工後可消除17處平交道。

(二) 執行成果

100年度為計畫第三年，仍以辦理各項前置作業為主：

- (1) 工程專案管理持續辦理設計、招標及決標之諮詢及審查。
- (2) DL01標鳳鳴降挖段（含鳳鳴、桃園臨時站與臨時軌部分）：CL121/122標臨時軌道路基工程招標作業。
- (3) DL02桃園段（含桃園車站、國際路站、永豐路站）：CL211標桃園段高架橋樑工程招標前置作業。
- (4) DL03中壢段（含桃園車站、國際路站、永豐路站）：完成期初設計成果，接續辦理期中設計作業。
- (5) 辦理臨時軌用地租用事宜。
- (6) 永久軌用地徵收作業由桃園縣政府辦理都市計畫變更中。

臺鐵都會區捷運化暨域區鐵路後續建設計畫（基隆－苗栗段）

█ 浮洲通勤車站於100年9月2日通車啟用

車站營運後提升新北市浮洲地區的生活機能與交通便利性，並促進在地的繁華發展。

█ 為101年12月31日三軌通車邁進一大步

樟樹灣－誠正國中擴建三軌工程山岳隧道段已於100年8月15日破鏡挖掘，為101年12月31日三軌通車邁進一大步。



Taipei Railway Workshop Relocation and Construction Project

1. Contents of project

- A. Improve tracks and equipment at Qidu Base.
- B. Construct Fugang Base.
- C. Plan and design Suxin Base.

2. Project achievements

On January 5, 2011, construction work began at Fugang Base and has made much progress during the year. Nearly all metal factory structures have been completed. The next steps are to paint the external metal walls and complete the interiors.

TRA Rapid Transit Systematization in Metropolitan on the Taoyuan Section of Elevated Track Project

1. Contents of Project

This project is carried out pursuant to the Executive Yuan's February 27, 2009 ratification of official document No. 098000793. The total budget is NT\$30.845 billion. The plan will be carried out between January 1, 2009 and December 31, 2017. Its major components include:

- a. A total of 15.95 km of excavated and elevated railway sections, including expansion to a three-track main line in north of Taoyuan with a two-track main line in south Taoyuan.
- b. The remodeling of Taoyuan, Neili and Zhongli stations as elevated stations
- c. The addition of four commuter stations at: Wuri, Guoji Road, Yongfeng Road and Chung Yuan Christian University.
- d. Improvements to other facilities and infrastructure in conjunction with the above tasks. 17 level crossings will be eliminated when the project is completed.

2. Project Achievements

The year 2011 was the third year of this plan. The primary achievements included:

- a. Continued planning and design for construction and engineering project management and consultations and investigations for bidding process.
- b. DL01 Fengming excavation section (including Fengmin, Taoyuan temporary station and temporary track): inviting bidders for CL121/122 temporary track and subgrade operations.
- c. DL02 Taoyuan section (including Taoyuan Station, Guoji Road Station and Yongfeng Road Station): preliminary preparations for bidding for CL211 Taoyuan section elevated bridge construction.
- d. DL03 Zhongli section (including Taoyuan Station, Guoji Road Station and Yongfeng Road Station): completed first phase designs and continuing with middle phase designs.
- e. Offered rentals of temporary railway land.
- f. Collection operations for perpetual railway land are proceeding according to Taoyuan County government's urban planning modifications.

TRA Rapid Transit Systematization in Metropolitan Area and Regional Railway Follow-up Construction Project (Keelung – Miaoli Section)

■ On September 2, 2011, the Fuzhou Commuter Station was operational

The station has elevated convenience of transportation and spurred urban development.

■ This was a major step toward the opening of the third rail

Excavation was begun on August 15, 2011 at Shanyue tunnel for the third rail expansion between Zhangshuwan to Cheng Zheng Junior High School.



08

年度大事紀要

Major Events of the Year





一月 JANUARY

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| 100/1/1 | <p>本日於瑞芳－基隆－新竹間配合多卡通新式自動驗票閘門啟用，開辦多卡通電子票證乘車業務，讓旅客能直接持各家票卡進站乘車，並方便轉乘其他運具，達到多卡電子票證整合，朝票證無紙化、票卡重複使用邁進一大步，善盡節能減碳的企業社會責任。</p> <p>Multipass automated ticket inspection gates were opened at stations between Ruifang - Keelung - Hsinchu. This allows passengers to use any E-ticket to enter and exit these stations, and Transfer from other modes of transportation. E-ticket multipass integration reduces paper used in tickets, increases carbon reduction and reflects the social responsibility of TRA.</p> |
| 100/1/2 | <p>沙崙支線啟用，馬總統英九親臨主持通車典禮，吳院長敦義、毛部長治國、臺南市賴市長清德、本局范局長植谷及多位貴賓蒞臨指導，並在典禮完成後，從沙崙站搭乘彩繪通勤電車開往臺南站為首航之旅，宣告本線正式開通營運。</p> <p>Shalun line came into operation. President Ma Ying-jeou personally hosted the opening ceremony. Premier Wu Denyi, Minister of Mao Chi Kuo, Tainan mayor Lai Qingde, TRA Director General Frank Fan and many other honored guests were in attendance. After the ceremony, the line was inaugurated by the first train, a painting commuter train from Shalun to Tainan.</p> |
| 100/1/2 | <p>配合沙崙支線通車啟用，於臺南、中洲、長榮大學、沙崙等4站同步開辦多卡通電子票證乘車業務，使臺灣電子票證乘車業務首度在南部地區辦理，讓旅客能直接持各家票卡進站乘車並方便轉乘其他運具。長榮大學站、沙崙站（簡易站）於本日營運並指定中洲站為管理站。</p> <p>Multipass compatibility began at four stations Tainan, Zhongzhou, Changrong University and Shalun in conjunction with the opening of Shalun line. These were the first multipass compatible stations in the southern Taiwan. Passengers can now have the convenience of using any E-tickets to take trains. Zhongzhou station was determined to be the management station.</p> |
| 100/1/3 | <p>99年鐵路特考第1次增額錄取人員分配作業，於99年12月27日公告分配結果。</p> <p>The results from the first job divisions for new employees admitted through the 2010 special civil service exam for railway employees were announced on December 27, 2010.</p> |
| 100/1/6 | <p>傾斜式電聯車136輛於本日辦理簽約。</p> <p>Contracts were signed for 136 tilting EMUs.</p> |
| 100/1/14 | <p>空調通勤電聯車296輛於本日辦理簽約。</p> <p>Contracts were signed for 296 air-conditioned commuter EMUs</p> |

二月 FEBRUARY

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| 100/2/1 | <p>行政院吳院長敦義於本日下午2時30分至臺北站視察臺鐵及高鐵春節疏運狀況，本局范局長植谷向院長簡報「臺鐵100年春節疏運計畫」。</p> <p>Premier Wu Denyi visited Taipei Main Station at 2:30pm to survey the progress on TRA and THSR preparations for Chinese New Year. TRA Director General Frank Fan presented the "TRA 2011 Chinese New Year Transportation Plan."</p> |
| 100/2/1-8 | <p>100年春節疏運期間加開481列次，加掛878輛次。每日平均上車人數57萬1,618人、收入5,953萬2,392元、延人公里3,410萬3,666人公里。</p> <p>For the 2011 Chinese New Year holiday, TRA added an additional 481 trains and an additional 878 train cars. The average daily passenger volume was 571,619 and revenue was NT\$59,532,392. Total passenger-kilometers were 3,410,366 km.</p> |



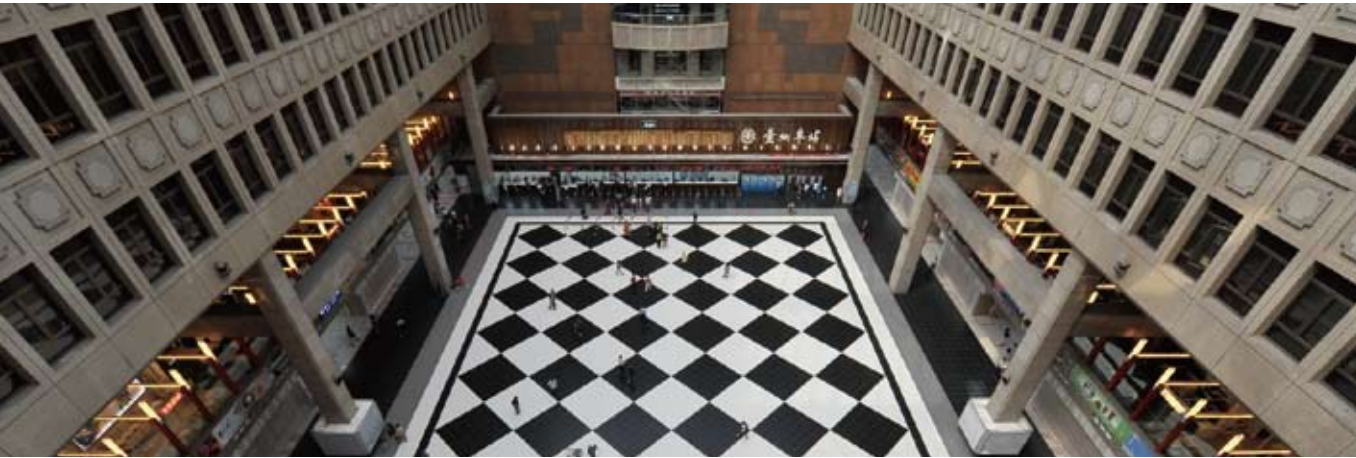
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| 100/2/2、5 | 交通部葉次長匡時於100年春節期間（2月2日及2月5日）視察本局臺北、桃園、新烏日、臺中站春節疏運情形。 Political Deputy Minister of MOTC Yeh Kuang Shih inspected the transportation capabilities of TRA for the 2011 Chinese New Year period (2/2 to 2/5) at Taipei, Taoyuan, Xinwuri and Taichung stations. |
| 100/2/6 | 交通部毛部長治國於100年春節期間視察本局竹南站春節疏運情形。 Minister of MOTC Mao Chi Kuo inspected the transportation capability of TRA at Zhunan Station for the Chinese New Year holiday. |
| 100/2/25 | 本局成立「通用設計委員會」，並召開第一次委員會議。 TRA convened the first meeting of the "Universal Design Committee." |

三月 MARCH

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| 100/3/18 | 日本千葉大學富井規雄教授蒞局演講「日本JR自動化排點系統」。 Professor Tominoro from Chiba University in Japan presented a speech entitled the "Japanese JR automated train scheduling system". |
| 100/3/21 | 南迴線中央隧道加固工程開工 臺北市捷運局辦理臺北車站C1、D1土地開發案徵求投資人公開說明會，由張副局長應輝代表出席。車勤服務人員全面換新裝，採用紫色系柔和套裝，顏色突破以往「老成」之刻板印象，在剪裁及樣式都加入新元素，搭配新潮的領巾，展現時尚與活潑及年輕化之新氣象，要讓旅客在視覺上有耳目一新的感覺。 首次與馬偕紀念醫院專業營養師合作，推出「烤鮭魚」、「香烤雞腿」及「素食」等三款健康養生便當，並首創以火車頭的塗裝樣式做為便當盒蓋之包裝設計圖，在盒蓋上並印有健康小叮嚀及營養標示，讓民眾在享受美食的同時又能兼顧健康。 Central tunnel fortification work for the South-link Line went into operation The Department of Rapid Transit Systems in Taipei hosted a public explanation from investors on the Taipei Main Station C1 and D1 land development plan. Department Vice-President Zhang Yinghui attended the event by representatives of TRA. Services personnel were given new uniforms. The uniforms were stylish and fresh and showed the youthful side of TRA, giving passengers a refreshing sight. TRA worked with nutritionists from Mackay Memorial Hospital to issue "Grilled Salmon", "Grilled Chicken Leg" and "Vegetarian" health-oriented boxed lunches. The lunches had innovative covers in the shape of locomotive engines with "Healthy Caution" and nutritional facts printed on the covers. Passengers can enjoy a delicious meal while still taking care of their health. |
| 100/3/28 | 舉辦鐵道紀念叢書全彩鐵路寫真集「The Taiwan Railway:1966-1970」贈書儀式，邀請作者美籍安有仁先生（Loren Aandahl）贈書於本局文獻室，以填補這段時間臺灣鐵道的影像空白，並進一步與鐵道同好互動交流。 A book giveaway event was held for the photo book "The Taiwan Railway: 1966-1970." The American author Loren Aandahl was invited to the literature room to distribute the books. This book brings life to this period of TRA history to increase the general public's interactions |
| 100/3/30 | 為提升對於旅客之服務，本局推出「會員制旅客服務系統」招募會員。該系統包括3大主軸，分別為購票消費之「積點酬賓兌換功能」、座位優化利用之「座位媒合功能」，及藉由本系統旅客交易資料蒐集、分析會員資料，作為差異化行銷之參考，進而拓展市場，增加營收，提高旅客服務滿意度及忠誠度之「顧客關係管理功能」。 TRA introduced the "Membership Services System". The system has three primary purposes: a points system, a seat matching system and "a customer database for TRA to analyze for differentiated marketing initiatives. This customer relations" system has expanded the market for TRA products and increased revenue as well as increasing customer satisfaction and loyalty. |



四月 APRIL



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| 100/4/1-6 | <p>100年清明節疏運期間自4月1日~6日，加開341列、加掛448輛次，每日平均旅客65萬9千人次，每日平均收入6,537萬元。</p> <p>The 2011 Qingming Festival fell on April 1 to April 6. TRA added 341 trains and 448 train cars. Average daily passenger volume was 659,000. Average daily revenue was NT\$65.37 million.</p> |
| 100/4/6 | <p>英國Balfour Beatty Rail公司來臺拜訪本局范局長植谷。</p> <p>The Balfour Beatty Rail company from England came to Taiwan to visit Director General Frank Fan.</p> |
| 100/4/7 | <p>竹北站跨站式站房開工</p> <p>Construction began on Zhubei elevated station.</p> |
| 100/4/16 | <p>交通部毛部長治國於本日上午10時視察基隆站臨時線路線切換及第一月臺施工情況，並由鐵路改建工程局許局長俊逸及本局范局長植谷陪同巡視。</p> <p>At 10am, Minister of MOTC MAo Chi Kuo observed the switching of the temporary track at Keelung Station and the construction work on the first platform. He was accompanied by the Railway Reconstruction Engineering Bureau's bureau chief Xu Junyi and Director General Frank Fan.</p> |
| 100/4/19 | <p>日本車輛公司會長生島先生來臺拜訪本局范局長植谷。</p> <p>Mr. Shengdao from a Japanese train car company came to visit Director General Frank Fan.</p> |
| 100/4/20 | <p>本局100年模範勞工表揚大會，由范局長植谷主持，交通部郭蔡次長文蒞臨致詞並頒獎。</p> <p>TRA held 2011 Model Worker Ceremony. It was hosted by Director General Frank Fan. Awards were given out by Political Deputy Minister of MOTC Cai Wenling.</p> |
| 100/4/21 | <p>環島鐵路整體系統安全提升計畫（苗栗等五站列車自動防護系統（ATP）地上設備改善工程）本日開工。</p> <p>Construction began on the Nationwide Rail Safety Improvement Plan (ground equipment renovation on automated protection programs for Miaoli and five other stations).</p> |
| 100/4/26-29 | <p>本局100年上半年在職員工教育訓練，於4月26日至29日分2梯次在演藝廳辦理，訓練課程包括：公務人員應有的法律常識、消費者保護、媒體聯繫與新聞寫作及公務倫理等4課程聘請講師專題演講，另有人文素養及節能減碳與環保等以數位學習方式辦理，共計976人參訓。</p> <p>The 2011 current employee training and education program for the first half of the year was held in two parts on April 26 and 29 in the auditorium. The 4 training courses included: consumer protection, media and newspaper contact and etc. In addition, courses on arts and culture, conservation and carbon reduction and environmental protection were given by digital learning. A total of 976 employees attended the trainings.</p> |
| 100/4/27 | <p>辦理母親節「媽媽的好味道」焗燒風味餐行銷活動，舉行試吃記者會，邀請法國鐵路國際部駐亞洲地區主任Mr. Pierre Mnnier擔任試吃嘉賓。</p> <p>Claypot meals with "Delicious Food from Mom" were sold to honor mother's day. A press conference with taste tests was held. Mr. Pierre Mnnier, was the special guest.</p> |



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| 100/5/8 | <p>高雄市第一臨港線（東段）配合高雄市區鐵路地下化工程，改由西正線出岔，臨時軌切換完成。</p> <p>A temporary track switch was completed for Number 1 Temporary Port Line of Kaohsiung (East section). To accommodate Kaohsiung's underground railway construction, the line was switched to the western main line.</p> |
| 100/5/14-15 | <p>考選部舉辦交通事業鐵路人員升資考試，因參加考試乘務人員共450人，故停駛貨物及行包列車75列，各級旅客列車156列，共231列。在考量對旅客衝擊最少層面下，除加掛車廂提高運能，部分時段因列車間距過大車站臨時增停對號車外，另協請臺灣高鐵公司、國道客運及其他地區客運業者支援機動加開班次，以協助運輸。</p> <p>The examination department held the transportation and railway personnel promotion examination. Because the exam, TRA suspended 75 freight cars and covered wagons as well as 156 various passenger cars, a total of 231 trains. To accommodate longer waiting times between trains, TRA also added stations for express trains to stop temporary. TRA also asked THSR and Guodao Bus Service to increase their transportation capacity during this time.</p> |
| 100/5/14 | <p>馬總統英九主持南迴線南太麻里溪橋開工動土典禮。</p> <p>President Ma Yingjeou hosted the ceremony for beginning work on the South-link line's South Taima Village River bridge.</p> |
| 100/5/17 | <p>范局長植谷率本局同仁25人，前往臺北捷運工程局辦理之桃園國際機場捷運（臺北市端）工地標竿參訪暨工程業務交流。</p> <p>Director General Frank Fan led 25 TRA colleagues to the Taipei Rapid Transit Construction Bureau to apply to visit the site mark for the Taoyuan International Airport train (Taipei City section) as well as to discuss and interact on construction efforts.</p> |
| 100/5/24 | <p>富源站北端道岔群配合雙軌切換完成。</p> <p>The turnout department from the northern end of Fuyuan Station completed its accommodations for the two track switch.</p> |
| 100/5/30 | <p>完成臺中線大甲溪橋橋基換底工程。</p> <p>Foundation replacement for the Dajia River bridge of Taichung line was completed.</p> |

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| 100/6/3-7 | <p>端午節疏運期間自6月3日至6月7日計5日，共加開東西線207列次、加掛372輛次，共計疏運319萬9,554人，營收2億9,699萬3,529元。</p> <p>The Dragon Boat Festival was between June 3 and June 7. TRA added 207 trains on the western and eastern lines and added an additional 372 cars. Total passenger volume was 3,199,554. Total revenue was NT\$296,993,529.</p> |
| 100/6/8 | <p>枋山等8座隧道加固工程開工。</p> <p>Construction work for fortifying Fangshan tunnel and 7 other tunnels commenced.</p> |



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| 100/6/9 | <p>為慶祝建國100年暨臺鐵124週年，上午在臺鐵大樓5樓演藝廳舉辦鐵路節慶祝大會活動，由本局范局長植谷主持，交通部毛部長治國親臨訓勉並表揚「特殊貢獻獎」、「臺鐵之友」、「優良志工」、「百站達人」、「資深員工」及「績優服務」人員共約150人，另於全線各站展開一年一度的系列慶祝活動。</p> <p>To celebrate the 100th anniversary of the ROC and the 124th anniversary of TRA, TRA hosted a performance and ceremony on the 5th floor auditorium. Director General Frank Fan hosted the event and Minister of MOTC MAo Chi Kuo personally presented awards for "Special Contribution", "Friends of TRA", and etc. In addition, annual celebrations were held at each TRA station.</p> |
| 100/6/9-12 | <p>為慶祝臺灣鐵路124週年暨鐵路節，特別規劃推出「臺鐵薪火相傳·十二同堂系列—CK124」不銹鋼便當盒。另於100年6月9日至6月12日（臺北站銷售點為6月9日至6月15日），在松山、臺北、臺中、高雄及花蓮等站同步舉行鐵路商品特賣會。</p> <p>To celebrate 124th anniversary, TRA issued the "TRA Passes the Torch – 12 Trains Under One Roof Series CK124" stainless steel lunch box. In addition, between June 9 and 12 (June 9 and 15 for Taipei Main Station), TRA held special sales events for TRA merchandise at Songshan, Taipei, Taichung, Kaohsiung and Hualien stations.</p> |
| 100/6/10 | <p>為慶祝建國百年，辦理「火車環島接力·百年車站巡禮」活動，6月10日第8棒主題郵輪式列車，由E1000型推拉式自強號擔任在基隆站啟航的主角。</p> <p>To celebrate the 100th anniversary of the ROC, TRA introduced the "Around-the-island Train Relay: Touring a Century of Railway Stations" activity. The main event on June 10 was the departure of the 8th "cruise train.", TRA ran the E1000 push-pull Tzu-chiang Express train from Keelung Station.</p> |
| 100/6/14 | <p>本局公開標售全國首宗公辦都更案權利變換分回店面及住宅，於6月14日公開標售臨近臺北捷運板南線府中站出口之金店面及住宅，計店面5戶、住宅34戶，全部標脫。</p> <p>TRA held the nation's first public auction to transfer publicly owned land rights back to businesses and residences. On June 14, TRA publicly auctioned storefronts and residences near Fuzhong station exit on Bannan line of Taipei MRT. All properties were sold, a total of 5 storefronts and 34 residences.</p> |
| 100/6/21 | <p>完成全線667座橋樑總檢查及耐震評估發包。</p> <p>Completed contract for inspection and earthquake readiness assessment on 667 bridges throughout the entire railway.</p> |
| 100/6/22 | <p>本局以「郵輪式列車」為主題，獲得第三屆政府服務品質獎項殊榮，行政院研考會於本日假公務人力發展中心「卓越堂」舉行頒獎典禮，由本局范局長植谷代表受獎。</p> <p>TRA received the third Government Service Quality award for its "cruise-style" trains. The Executive Yuan's selection committee conducted the awards ceremony at the Zuoyue Hall of the Civil Service Personnel Development Center. Director General Frank Fan received the award on behalf of TRA.</p> |
| 100/6/22 | <p>為提供外國觀光客便利的旅遊服務，本日起提供網路付款購票系統英文版服務，使國外旅客可於付款網站自行操作線上購票。</p> <p>To accommodate the needs of foreign passengers, TRA began offering online payment systems in English on its website, and made them to purchase tickets by online payment systems on TRA website.</p> |

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| 100/6/21-23 | <p>本局首次以電腦線上測驗，辦理100年度行車員工規章測驗。</p> <p>TRA conducted the 2011 train employee handbook test, the first online examination of TRA.</p> |
| 100/6/28 | <p>100年鐵路人員升資考試榜示，錄取員級晉升高員級136名，佐級晉升員級272名，士級晉升佐級333名，合計741名。</p> <p>The results for the 2011 promotion examination were: 136 employee-class promotions were made, 272 rank-and-file promotions were made and 333 ground-level promotions were made for a total of 741 promotions.</p> |
| 100/6/30 | <p>彰化站跨站式天橋完工。</p> <p>多卡通電子票證乘車服務，本日起北部由原新竹－瑞芳間延長至福隆站(增加侯硐、雙溪、貢寮、福隆)。南部區段增加保安、大橋、永康、新市、南科站共9站，便利持卡旅客往返沙崙支線至南科園區間自由轉乘高鐵，落實無縫運輸。</p> <p>與首都、葛瑪蘭客運合作推出花蓮－臺北間聯運，其中臺北－羅東為國道客運，羅東－花蓮為鐵路運送，初期於花蓮、新城、吉安等站發售聯運票，以無縫運輸方式方便旅客。</p> <p>Completion of elevated bridge at Changhua station</p> <p>Multipass E-ticket integration expanded to a total of 9 stations including the northern section (Hsinchu to Ruifang) expanded to Fulung (include Houtong, Shuangxi, and ect.) and the southern section of Baoan, Daqiao, , and ect. Passengers transferring from the THSR on Shalun line and Nankeyuan areas will benefit from the added convenience.</p> <p>TRA also established a rail-to-road transportation alliance between Taipei and Hualien with private bus services (Capital and Kamalan). In the initial phase, tickets can be purchased at Hualien, Xincheng and Jian stations. It brought passengers convenience with the implementation of seamless transportation.</p> |

七月 JULY

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| 100/7/1 | <p>為提升服務品質，本日起開放全區間「即時動態查詢功能」，可依據手機、PDA等不同螢幕尺寸瀏覽，提供時刻表與車站最近列車時刻查詢。</p> <p>To promote a higher quality of customer service, TRA began offering the "Real Time Dynamic Query Function" for all train types to allow passengers to use mobile phones and PDAs to search for timetable and information on the nearest trains.</p> |
| 100/7/9 | <p>集集線沿線老舊隧道加固工程6月30日竣工，7月9日由本局、觀光局及南投縣政府共同舉辦復駛通車典禮，馬總統英九、行政院吳院長敦義及交通部毛部長治國等多位貴賓蒞臨指導。7月9日到17日辦理免費試乘，又首列復駛專車並首創以CK101和CK124雙蒸汽火車重聯運轉，並推出木製鉛筆盒等紀念商品。</p> <p>TRA completed fortification efforts on old tunnels of Jiji Line on June 30. On July 9, TRA, along with the Tourism Bureau and Nantou County Government, jointly hosted the reopening ceremony for this line. President Ma Yingjeou, Premier Wu Denyi and Minister of MOTC MAo Chi Kuo were all in attendance. Free rides were offered between July 9 and July 17. In addition, the first refurbished and first constructed trains CK101 and CK124 were connected as a dual-steam engine train. TRA also offered wooden pencil boxes as commemorative souvenirs.</p> |
| 100/7/10 | <p>為慶祝建國百年，特以12代各式特色車種辦理「火車環島接力 百年車站巡禮」主題郵輪式列車活動，100年7月10日第9棒主題郵輪式列車，由DRC1000柴油客車擔任啟航儀式的主角，由竹南站開至沙鹿站，主題「海洋風情·中港獨秀」。</p> <p>To celebrate the 100th anniversary of ROC, TRA promoted "cruise-style" itineraries with 12 generations of trains for "Around-the-island Train Relay: Touring a Century of Railway Stations" activity. The main event on July 10 was the departure of the 9th "cruise train" from Zhunan to Shalu. TRA used a DRC1000 diesel passenger train for the departure ceremony.</p> |
| 100/7/12 | <p>100年局長盃慢速壘球錦標賽於花蓮市國福棒壘球場舉行，共有16個地區文康小組，17支球隊報名參賽，由范局長植谷主持開球儀式，比賽結果第1名臺東地區文康隊、第2名高雄地區文康隊、第3名七堵地區文康隊。</p> <p>交通部舉辦「大道之行一百年交通人物」紀錄片發表會活動，本局推薦鄧有才先生（已歿）暨陳前局長德沛為百年人物代表。</p> <p>The 2011 Slow-Pitch Softball Director General's Cup was held at Hualien's Guofu Baseball Field. Director General Frank Fan hosted the opening ceremony. The championship was won by the Taitung team with the Kaohsiung team in second place and the Qidu team in third.</p> <p>The MOTC hosted the "Road Trip -100 Years of Transportation Figures" documentary screening. Representing TRA in the centenary figures were Deng Youcai (deceased) and former director general Chen Depei.</p> |



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| 100/7/16 | <p>本日起，對號列車只要誤點45分鐘以上，旅客可辦理全額退費，而且退費期限也由15天內延長為一年。</p> <p>Starting today, if a seated train is more than 45 minutes late, passengers can apply for a full refund. The application period for the refund was extend from 15 days to a year.</p> |
| 100/7/18 | <p>為配合百年七夕情人節，本日開始接受預購，8月5日起正式銷售「YES I DO愛情文鎮」，本商品首次設計可於鋼軌上刻製一組姓名或具有紀念性文字之客製化服務。</p> <p>To celebrate the centenary Chinese Valentine's day, TRA accepted advanced orders for its "Yes I Do Loving Paperweight" to be sold on August 5th. This paperweight could be engraved with a name or phrase.</p> |
| 100/7/23-24 | <p>為鼓勵肌萎縮症病友走出戶外，希望藉由病友間的聯誼來舒緩病痛折磨，社團法人中華民國肌萎縮症病友協會辦理「100年肌萎天使翱翔東部~圓夢之旅」搭火車遊宜蘭、花蓮活動。考量參與圓夢之旅的肌萎症病友們的咀嚼功能，參考健康養生便當製作之概念，研發推出少油、少糖、少鹽、高纖維之專屬便當，獲媒體報導，具正面好評。</p> <p>To encourage those with muscular atrophy to go outdoors and to bring strength through togetherness for those with muscular atrophy, the Muscular Atrophy Association of Taiwan hosted the "2011 Muscular Atrophy Angel Wings to the East Dream Voyage". The event featured railway travel to Ilan and Hualien. TRA made special boxed lunches low in oil, sugar and salt and high in fiber.</p> |
| 100/7/29 | <p>湖口跨站西站房啟用</p> <p>國際青年之家協會執行長Mikael Hansson及亞太總監Pravee komolkanchana，在我國青年之家蘇理事長成田等人陪同下，拜會本局范局長兼常務理事植谷，並交換國外青年從事鐵道旅遊趨勢及未來發展方向。</p> <p>Opened Hukou Elevated West Station</p> <p>The CEO and Asia Director of the International Youth Hostel Association, Mikael Hansson and Pravee Komlkanchana, visited Director General Frank Fan. They were accompanied by the chairman of Taiwan Youth Hostel Association Su Chengtian. They sought to discuss international trends for youth railway travel and directions for future development.</p> |
| 100/7/31 | <p>本局范局長植谷參加行政院青輔會舉辦青年政策論壇－全國會議。</p> <p>TRA Director General Frank Fan took part in the national conference on youth policy which was hosted by the Nation Youth Commission of Executive Yuan.</p> |

八月 AUGUST

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| 100/8/2 | <p>臺鐵旅運服務再創佳績，自99年每日平均旅運人次52萬人次，創近10年來單日新高紀錄，100年上半年度業績仍持續成長，日平均旅運人次更達到55萬人次，較99年同期成長8.9%，而客運收入亦恢復高鐵通車前之水準，並創高鐵96年通車以來新高，日平均營收為4,200萬元，較99年同期成長7.74%。</p> <p>TRA travel service reached new levels of excellence. In 2010, average daily passenger volume was 520,000. TRA had the highest passenger volume for a single day in the past 10 years. In 2011, record levels were reached with passenger volume growing throughout the first half of the year. The average daily passenger volume for 2011 was 550,000, an 8.9% increase from 2010. Revenue from the passenger service reached pre-THSRC levels and set the record for the highest level of revenue since the opening of THSR in 2007. Average daily revenue was NT\$42 million, an increase of 7.74% from 2010.</p> |
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| 100/8/10 | <p>本局為慶祝建國百年，特以12代各式特色車種辦理「火車環島接力·百年車站巡禮」活動，8月主題「山城好客 美景天成」，8月10日、20日及30日各開行一列之第10棒主題郵輪式列車，由EMU1200型自強號電聯車擔任主角。</p> <p>To celebrate the 100th anniversary of ROC, TRA promoted "cruise-style" itineraries with 12 generations of trains for its "Around-the-island Train Relay: Touring a Century of Railway Stations" activity. The main events on August 10, 20 and 30th were the departures of the 10th "cruise trains". TRA used an EMU1200 Tzu-chinag Express train for the voyage.</p> |
| 100/8/22 | <p>完成基隆、三坑、八堵車站拉皮工程</p> <p>TRA completed lift refurbishment project at Keelung, Sankeng and Badu stations.</p> |
| 100/8/23 | <p>為配合青輔會辦理「『臺灣有愛無礙，服務百分百』優勝青年團隊參與一日首長見習體驗活動」，及展現本局推動車站無障礙設施設備之用心，試辦臺鐵無障礙旅遊，特邀請優勝青年團隊之學生暨弱勢團體負責人，在交通部毛部長治國及本局范局長植谷陪同下，共同體驗鐵道無障礙旅遊。</p> <p>In conjunction with the National Youth Commission's and to promote TRA's handicapped access facilities, TRA ran a pilot program for handicapped access travel. TRA invited special youth teams and team leaders for disadvantaged youth to try using the handicapped facilities for rail travel. They were accompanied by Minister of MOTC Mao Chi Kuo and Director General Frank Fan.</p> |

九月 SEPTEMBER



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| 100/9/2 | <p>浮洲車站於本日下午14時30分舉辦啟用典禮，由本局范局長植谷主持，交通部毛部長治國、新北市朱市長立倫、立法委員吳清池、林鴻池先生及多位貴賓蒞臨指導。新建浮洲車站是配合鐵路捷運化政策所興建之簡易車站，於98年2月動工至100年8月竣工。</p> <p>The opening ceremony for Fuzhou Station was held at 2:30pm. Director General Frank Fan hosted the event with MOTC Minister of Transportation Mao Zhiguo, New Taipei City Mayor Zhu Lilun, Legislators Wu Qingchi and Lin Hongchi, and other honored guests in attendance. The newly built Fuzhou Station is a simplified station in accordance with the rapid transit systematization plan. Construction began in February 2009 and was completed in August 2011.</p> |
| 100/9/8 | <p>本局參與交通部100年度創新及創意獎，其中臺北運務段八堵站提案：「善用重新粉刷時機，根據各地景觀特色，彩繪各月臺雨棚之樑柱」（提案人：站長楊其賢、站務佐理陳玉蘭）、餐旅服務總所提案：「『鐵不出軌』愛情文鎮」（提案人：視察陳世雄、課員曹淑君）榮獲創新獎管理類甲等獎；臺北機廠提案：「藝術創造—薪火相傳」（提案人：幫工程司李正進）榮獲創意獎工程類，並於14時30分在交通部部務會報受獎。</p> <p>TRA participated in 2011 Innovation and Creativity Awards of MOTC. The Badu station of Taipei section submitted the "Taking the opportunity of repainting to paint the canopy pillars on train platforms with images that fit with local scenery" proposal (submitted by station master Yang Qixian and station assistant Chen Yulan). Catering services submitted the "TRA Does Not Derail Loving Souvenir" proposal (submitted by Inspector Chen Shixiung and Member Cao Shujun). Both proposals won awards for excellence in the management category. Taipei Workshop's submission "Passing the Torch" sculpture (submitted by Engineer Lee Zhengjin) won the award in the creative engineering division. Awards were distributed at 2:30pm at the MOTC Ministry Affairs Office.</p> |



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| 100/9/9 | <p>中秋節假期疏運期間自100年9月9日至9月13日，全線加開207次，加掛358輛次，共疏運旅客326萬874人，每日平均疏運65萬2,174人次，每日平均客運營收為6,123萬4,699元。因100年中秋節為連續假期，每日平均疏運人數較99年中秋節假期增加21.03%，每日平均客運營收增加51.92%。</p> <p>The Autumn Moon Festival was between September 9 and September 13. TRA added 207 trains and an additional 358 cars. Total passenger volume was 3,268,74. Average daily passenger volume was 652,174. Average daily revenue was NT\$61,234,699. The average daily passenger volume was 21.03% higher than in 2010. Average daily revenue increased by 51.92%.</p> |
| 100/9/10 | <p>本局為慶祝建國百年，特以12代各式特色車種辦理「火車環島接力·百年車站巡禮」活動，第11棒主題郵輪式列車，由TEMU1000型太魯閣號電聯車擔任9月10日啟航儀式的主角，由新竹至彰化，主題為「雲端祈福·搖擺登頂」，並持續於20日及30日各開行一列車深獲好評。</p> <p>臺中線第一筏子溪橋延長工程開工。</p> <p>To celebrate the 100th anniversary of ROC, TRA promoted "cruise-style" itineraries with 12 generations of trains for its "Around-the-island Train Relay: Touring a Century of Railway Stations" activity. The main event on September 10 was the departure of the 11th "cruise train" from Hsinchu station to Changhua station. TRA used a TEMU1000 Taroko Express EMU for the departure ceremony. The highly praised train also ran itineraries on September 20th and 30th.</p> <p>The first Fazi River bridge of Taichung line began construction.</p> |
| 100/9/19 | <p>臺北車站中島票房遷移至大廳西側，新票房於零時啟用，車站大廳空間將作為多功能展演廳。</p> <p>由臺灣軌道工程學會主辦之第二屆兩岸四地城市軌道交通及捷運發展論壇，自本日起一連3天在臺北市圓山飯店舉行，開幕典禮由本局范局長兼學會理事長植谷主持，並請交通部郭蔡次長文擔任貴賓致詞，計有來自大陸、香港、澳門及本地軌道界人士共570餘人參與盛會。</p> <p>The relocation of ticket window in the middle of Taipei Main Station move to the west side of the main lobby was completed. The new ticket window opened at 00:00 A.M. The main lobby will now be used as a multi-purpose auditorium.</p> <p>The Taiwan Railway Engineering Society held its second Cross-strait Urban Rail Transportation and Rapid Transportation Development Forum. This 3-day forum took place at Taipei's Grand hotel. The opening ceremony was hosted by Director General Frank Fan. The MOTC Political Deputy Minister Guo Caiwen delivered the keynote address. A total of 570 participants from railway industries in China, Hong Kong, Macau and Taiwan attended the event.</p> |
| 100/9/20 | <p>山佳車站跨站式新站房於本日10時舉辦啟用典禮，由本局范局長植谷主持，交通部郭蔡次長文、新北市許副市長志堅及立法委員黃志雄等多位貴賓蒞臨指導。本站跨站式站房是配合鐵路捷運化政策所興建之跨站式車站，於民國98年1月動工至100年9月竣工。</p> <p>Shanjia Elevated Station held opening ceremony at 10am. Director General Frank Fan hosted the event with MOTC Political Deputy Minister Guo Caiwen, New Taipei City Deputy Mayor Xu Zhijian and Legislator Huang Zhixiong in attendance. The elevated station was constructed in accordance with the rapid transit systematization plan. Construction began in January 2009 and was completed in September 2011.</p> |



臺北車站大廳內原中島票房 The original is the Nakashima Booking Office in Taipei Main Station.

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| 100/9/28 | <p>配合新建車站及六家內灣線啟用需求，自本日起調整各級列車時刻，車次名並大幅更修，列車編碼尾數以環島方向區分，順時針方向行駛的列車尾數為偶數碼、逆時針方向則為奇數碼，且設置預備碼以利日後增班或列車調整。</p> <p>To accommodate the needs of new stations and the opening of Liujia and Neiwan lines, TRA conducted a large-scale modification of timetables and train number. The last numbers in train numbers were determined based on the direction of travel around the island. Trains traveling clockwise had even last numbers and trains traveling counter-clockwise had odd last numbers. Following train numbers were also prepared in anticipation of additional trains or train adjustments.</p> |
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臺北車站大廳西側新票房 The new booking office in the west of Taipei Main Station

十月 OCTOBER

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| 100/10/1 | <p>本局近年來在全體同仁努力下，迭創佳績，獲得行政院核定「99年度工作考考甲等」，交通部毛部長治國特於100年9月1日部務會報頒獎，又「郵輪式列車」創新運輸服務部份，耕耘有成，也獲得「第三屆政府服務品質獎」規劃機關類的殊榮，肯定本局積極努力的成果。</p> <p>With the hard work of all TRA colleagues, TRA successfully received the "2010 Excellence in Work" certification of Executive Yuan. Minister of MOTC Mao Chi Kuo delivered the award on September 1 at the Ministry Affairs Office. TRA also received the "Third Government Service Quality Award" in the planning category for its "cruise-style" trains. These awards affirmed the excellent achievement of TRA.</p> |
| 100/10/4 | <p>配合「臺鐵都會區捷運化桃園段高架化建設計畫」150輛35噸篷車改造為30噸敞車工程，全數完成驗收並投入營運。</p> <p>In accordance with the TRA Metropolitan Area Mass Rapid Transit Systematization Elevated Track (Taoyuan Section) plan, TRA completed converted 150 35-ton boxcars to 30-ton open freight cars. The cars passed inspection and were put into operation.</p> |
| 100/10/5 | <p>本局與馬偕紀念醫院淡水院區合作，於100年3月21日推出健康養生便當，獲得民眾熱烈反映及迴響，為提供多元化選擇，及更新健康養生便當菜色，於本日再推出「臺鐵迷迭香烤雞腿」、「臺鐵檸檬香茅鯖魚」及「臺鐵茄汁素排（蛋奶素）」等3款健康養生便當，希望民眾可以吃得健康美味無負擔的養生便當。</p> <p>On March 21, TRA worked with Danshui Branch of Mackay Memorial Hospital to issue healthy boxed lunches, TRA began offering 3 kinds of updated boxed lunches: "TRA Rosemary Grilled Chicken Leg", "TRA Lemongrass Mackerel" and "TRA Vegetarian Steak and Tomato Sauce (contains eggs and dairy)" healthy boxed lunches. Passengers can now enjoy delicious and healthy boxed lunches.</p> |
| 100/10/6 | <p>臺北車站大廳中島票房由ROT承商拆除後，地坪改以棋盤式黑白相間大地磚鋪設，呈現仿中國古典文藝特色，並於本日完成啟用。未來將規劃成「多功能展演廳」，以期能作多元化利用及策展相關文創等藝文活動。</p> <p>After removing the ticket window in the middle of main lobby at Taipei Main Station by ROT contractor, the floors were converted to a "checkerboard-style" black and white pattern. The project on the floors was completed on this date. In the future, the lobby will be converted to a "multi-purpose auditorium" to be used for various artistic and performance activities.</p> |
| | <p>交通部於國際會議中心辦理「建國一百年服務學術研討會」，本局范局長植谷應邀主持「鐵道運輸系統回顧及永續發展」。</p> <p>The MOTC hosted the "Centennial Service Academic Discussion Panel" in its International Conference Center. Director General Frank Fan was invited to host a talk on "Looking back on the rail transportation system and looking forward to its future".</p> |



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| 100/10/10 | <p>本局為慶祝建國百年，特以12代各式特色車種辦理「火車環島接力·百年車站巡禮」活動，第12棒主題郵輪式列車，由EMU700型電聯車（俗稱阿福號）擔任10月10日啟航儀式主角，由松山到彰化，主題為「福氣雲集·國泰民安」，並持續於20日及30日各開行一列車，為持續1年的系列活動，圓滿畫下句點。</p> <p>To celebrate the 100th anniversary of ROC, TRA promoted "cruise-style" itineraries with 12 generations of trains for its "Around-the-island Train Relay: Touring a Century of Railway Stations" activity. The main event on October 10 was the departure of the 12th "cruise train" from Songshan to Changhua . TRA used a EMU700 train (known as the Afu Express) for the departure ceremony .The train also ran itineraries on October 20th and 30th and completed a year of this successful activity.</p> |
| 100/10/14 | <p>100年鐵路特考計錄取正額716名，增額253名，共計969名。</p> <p>The 2011 special civil service exam for railway employees resulted in 716 official admissions, 253 additional admissions for a total of 969 admissions.</p> |
| 100/10/23 | <p>本局范局長植谷應邀參加鐵路改建工程局主辦「南港專案工程竣工」暨市民大道通車典禮。</p> <p>Director General Frank Fan was invited by the Railway Reconstruction Engineering Bureau to the "Nangang Project Completion Ceremony" at Civil Boulevard.</p> |
| 100/10/24 | <p>為慶祝建國100年暨臺灣縱貫鐵路通車103周年，特於臺北車站「多功能展演廳」委託國立臺灣博物館辦理「火車載阮向前行—臺鐵百年文物特展」，同時在臺北站東一門外廣場展示「LDK58蒸汽火車+LDR2201柴油客車」，呈現臺灣早期的鐵道印象，25日正式舉辦開展典禮，由本局范局長植谷主持、交通部毛部長治國及多位貴賓蒞臨共襄盛舉，展出至12月4日止。</p> <p>To celebrate the 100th anniversary of ROC and the 103rd anniversary of Western Line rail travel, TRA partnered with the National Taiwan Museum to hold "A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics" in the Multi-purpose auditorium at Taipei Main Station. At the same time, TRA displayed the "LDK58 steam locomotive and LDR2201 diesel passenger train" on the east side of Taipei Main Station . The opening ceremony was held for the 25th to be hosted by Director General Frank Fan with Minister of MOTC Mao Chi Kuoi and other honored guests in attendance.</p> |



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| 100/10/25 | <p>為慶祝建國100年暨縱貫鐵路通車103年，特舉辦「火車載阮向前行 百年文物特展」。展覽期間為10月24日至12月4日止，並於100年10月25日舉行開展典禮，由本局范局長植谷主持，交通部毛部長治國、與歷任局長黃德治、陳德沛等貴賓蒞臨會場給與指導、鼓勵與肯定。</p> <p>To celebrate the 100th anniversary of ROC and the 103rd anniversary of Western Line rail travel, TRA held "A Joyful Ride with TRA: A Centenary Exhibition of TRA Relics" from October 24 to December 4. The opening ceremony was hosted by Director General Frank Fan with Minister of MOTC Mao Chi Kuo , and former Director Generals Huang Dezhi and Chen Depei in attendance.</p> |
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十一月 NOVEMBER

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| 100/11/4 | <p>100年鐵路特考正額錄取人員703人，本日報到590人，報到率為83.93%</p> <p>The 2011 Special Civil Service Exam for railway employees resulted in 703 official admission, 590 candidates reported for duty, a reporting rate of 83.93%.</p> |
| 100/11/11 | <p>為配合交通部擴大公共建設投資計畫，在原有內灣線上（新竹至竹中）新建接往高鐵新竹站之六家線，及改善現有內灣線路線，歷經4年半施工，日前竣工並經交通部履勘通過，於本日辦理完工通車暨復駛典禮活動，行政院吳院長敦義、交通部毛部長治國及本局范局長植谷應邀出席，並由DT668蒸汽火車擔任復駛首航列車。</p> <p>TRA built the Liujia Line on the original Neiwán Line (Hsinchu to Zhuzhong) to bring passengers to Hsinchu Station of THSR. TRA also adjusted Neiwán Line. After 4 years of construction, TRA held the reopening ceremony for Neiwán Line. Premier Wu Denyi, Minister of MOTC Mao Chi Kuo and Director General Frank Fan were in attendance. The inaugural voyage was taken by a DT668 steam locomotive.</p> |
| 100/11/11 | <p>微風公司依《促參法》辦理臺北車站大樓G+1、U-1層商業空間擴充範圍整建營運案，於本日11時正式開幕加入營運，本局范局長植谷應邀致詞。</p> <p>The Breeze Corporation officially began operations of the ROT project for Taipei Main Stations G+1 and U-1 commercial levels under the promotion of private participation law. Director General Frank Fan was invited and hosted the speech.</p> |





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| 100/11/14 | 新左營站旅運服務空間促進民間參與整建營運案，正式與冠友生活股份有限公司完成簽約。 A contract was signed with Guanyou Lifestyle Company for the ROT project in the travel services space of Xinzuooying station. |
| 100/11/15 | 於臺北號誌分駐所建置號誌維修管理資訊系統（SMMIS），以電腦化方式管理號誌設備維修作業流程，簡化作業程序，減少號誌障礙，提升號誌可靠度。 The Taipei signals department completed the signal maintenance management information system (SMMIS). The SMMIS uses computerized systems to control procedures for signal repair and maintenance to reduce the number of signal problems and increase the reliability of the signaling systems. |
| 100/11/16 | 本局以「郵輪式列車」為主題，參加財政部99年度「提升政府財務效能」方案評選，經評定為「以創新思維及創新財務措施，有效提升財務及業務效能之成功案例」，獲得業務創新獎項殊榮，財政部假財政部財稅人員訓練所舉行頒獎典禮，由本局運務處詹處長鴻漳代表受獎。 For its "cruise-style" trains, TRA was awarded the 2010 "Elevating Government Financial Performance" award for "innovation in finances to effectively enhance financial performance project" Taxation and finance staff from the Ministry of Finance held the awards ceremony. The Director of Transportation Department Zhang Hongzhang received the award. |
| 100/11/19 | 位於臺北車站西三門的「臺鐵便當本舖」，配合臺北車站整建工程，重新打造新櫃位，以「臺北車站第三代」建築風格設計「臺鐵便當本舖」外觀，於本日啟用，令民眾耳目一新。 TRA opened its newly relocated "TRA Boxed Lunch Stand". It was moved from its old location at the West 3rd door because of Taipei Main Station renovations. The newly designed shop features "The Third Generation of Taipei Main Station" style to give customers a refreshing look. |
| 100/11/20 | 辦理「鐵道旅行·幸福100」一成功到站座談活動，民眾踴躍參加，與本局范局長植谷、鐵道旅遊達人、紀念戳章藝術家等人互動熱烈，並應民眾要求，100個站戳章蒐集活動延至101年1月31日止。 TRA hosted the "Discover Taiwan by Railway" completion ceremony with enthusiastic attendance. Director General Frank Fan and the designers of the commemorative stamps mingled with people who successfully completed 100 stations. To comply with the public request, TRA extended availability of its stamps to January 31, 2012. |

十二月

DECEMBER

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| 100/12/9 | 響應1209國際反貪日，本局與國科會在臺北車站1樓多功能展演廳共同主辦「2011全民連署反貪倡廉活動」。 In conjunction with the December 9 International Anti-corruption Day, TRA hosted the "2011 general public against corruption activity" in partnership with the National Science Council in the multi-purpose auditorium on 1st floor at Taipei Main Station. |
| 100/12/20 | 本局環島鐵路整體系統安全提升計畫中，花蓮電務段轄區列車方向指示器新設工程，榮獲第11屆公共工程金質獎（設施類）優等獎。 The electrical department for the Hualien rail section was awarded the "11th Public Construction Golden Quality Award" (installation category) for its project to replace directional indicators for its local line in accordance with Nationwide Railway Safety Enhancement Project of TRA. |
| 100/12/22 | 為提供旅客更省時便利的購票方式，於本日上午6點開放中華郵政、統一超商、全家便利商店、萊爾富超商、OK超商等5家廠商，提供取票服務，全國預計可提供將近1萬個服務據點。 To provide more convenient way for passengers to purchase tickets, TRA began offering ticket sale services at Chunghwa Post Offices, and Uni-President, Family Mart, Hi-Life, and OK Mart stores at 6am. A total of nearly 10,000 service locations are available. |
| 100/12/24 | 「百人豎琴馬拉松音樂會」下午16：00至23：00在臺北車站1樓多功能展演廳舉辦。 TRA held the "100 Harpists Marathon Concert" in the multi-purpose auditorium on the 1st floor of Taipei Main Station between 4pm and 11pm. |



— 本年鑑謹向張故副局長致上永恆的追思 —

本局副局長張應輝先生，於本年鑑編輯期間不幸病逝（101年6月21日），特以此專頁敬表紀念。張故副局長病危彌留之際，仍心繫臺鐵，到最後一刻還不肯捨棄，鞠躬盡瘁精神，同仁咸感哀痛不捨。交通部毛部長治國頒贈「一等交通專業獎章」乙枚及證書乙幀，以表彰張故副局長對臺灣鐵路發展貢獻厥偉。本局另頒贈褒揚狀乙幀，並舉行象徵鐵路最高榮譽之「覆路旗」儀式，以告慰其在天之靈，永遠不朽的鐵路魂。

This special page is to commemorate and pay tribute to former Deputy Director General Mr. Ying-Hui Chang, who died of illness on June 21, 2012 during the course of this Annual Report being edited. We mourn with deep lamentation for a beloved and respected officer and pay last respect to Mr. Chang's long dedication to TRA, for even lying on the dying bed, he never ceased feeling concerned for TRA. To glorify his tremendous contribution to Taiwan railway development, a medal together with a Certificate of "1st Grade Transportation Special Medal" are awarded by the Minister of Ministry of Transportation and Communications Mr. Mao Chi-Kuo. And in addition to an official Commendation Honor awarded by TRA, a service symbolizing TRA's highest honor – "draping TRA's flag on the coffin" also took place in funeral to console and immortalize the spirit of the Deceased as a living soul of railway forever.





臺灣鐵路100年鑑

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出版機關／交通部臺灣鐵路管理局

機關地址／10041臺北市中正區北平西路3號

機關電話／02-23815226

網址／<http://www.railway.gov.tw/>

出版年月／民國101年8月

創刊日期／民國50年4月

刊期頻率／年刊

設計承製／朱墨形象設計廣告有限公司

電話／02-27882000

版次／初版（電子全文同步登載於臺鐵網站）

展售處／國家書店松江門市

地址／10485臺北市松江路209號1樓

電話／02-25180207

國家網路書店／<http://www.govbooks.com.tw>

五南文化廣場

地址／40042臺中市區中山路6號

電話／04-22260330

網址／<http://www.wunanbooks.com.tw>

著作財產權人：交通部臺灣鐵路管理局

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定價／新臺幣400元 ISSN／1729-3243 GPN／200500023

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