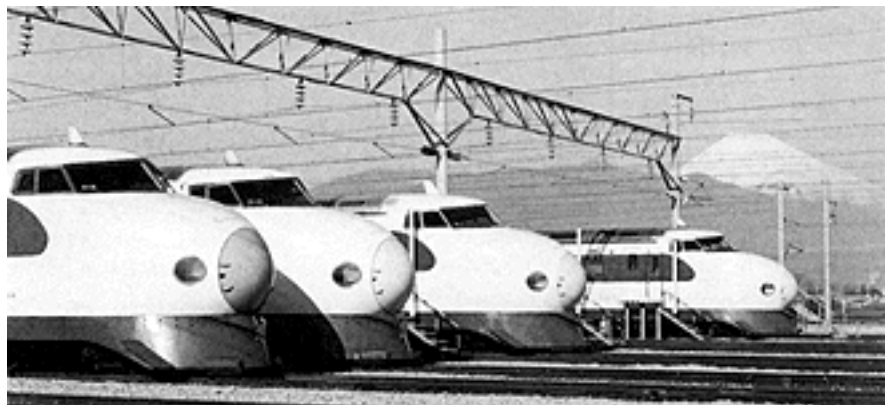


# Topics

(July-December 1994)

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|--|---|---|---|---|--|
| <p>1 July</p> <p>2 July</p> <p>3 July</p> <p>13 July</p> <p>15 July</p> <p>19 July</p> | <ul style="list-style-type: none"> <li>• Mauritania Airline's Fokker 28 from Nouakchott, capital of Mauritania, crashed at Tidjikja Airport in northern central Mauritania in West Africa</li> <li>• US Air domestic DC9 (with five crew and 52 passengers) from Colombia, North Carolina, crashed on landing in storm and burned 800 m from runway at Charlotte International Airport, North Carolina, killing 37 and injuring 29 passengers and crew</li> <li>• Explosion on train bound for Wuchang from Fuzhou near Junchang, Fujian Province, China, killing 19 and injuring 49</li> <li>• Fifth Brunel Award (international railway-carriage design prize) awarded to Haruka Express (281 system) of JR West in short-distance train section, and to Tsubame Express (787 system) of JR Kyushu in long-distance train section</li> <li>• Two Max (E1 system) double decker trains enter operation on Tohoku and Joetsu shinkansen lines to cope with increased commuters. Each train consists of 12 carriages with total of 1235 seats, 40% increase over conventional 200 system. Trains operate during day. Max stands for Multi Amenity Express</li> <li>• Japan's ocean-going shipping business hard hit by steep appreciation of yen. Five leading shipping firms posted substantial total operating deficit of</li> </ul> | <p>20 July</p> <p>26 July</p> <p>26 July</p> <p>28 July</p> <p>28 July</p> <p>28 July</p> <p>3 August</p> | <ul style="list-style-type: none"> <li>• about ¥21.3 billion, according to White Paper Present State of Japanese Shipping released by Transport Ministry. Rise of 1 yen against dollar means loss of about ¥1.25 billion.</li> <li>• Matsumoto Electric Railway (head office Matsumoto City, Nagano Prefecture) introduced four diesel-electric hybrid buses to operate on bus route between Kamikochi, entrance to Northern Alps, in Azumimura, Nagano Prefecture, and Asumi-Sawando at foot of mountains. Buses powered by 12-V batteries cut black smoke emission by 70% and NOx by 30% compared with ordinary buses</li> <li>• Matsumoto Airport in Nagano Prefecture becomes 52nd jet airport in Japan with runway extended from 1500 m to 2000 m. As result, YS-11s replaced by MD-87s</li> <li>• Armed bandits attack train bound for Kampot in Kampot Province in southern Cambodia from Phnom Penh, killing 9 passengers and soldiers and injuring many others</li> <li>• Construction work started on about 1-km single track elevated railway line from JR Nichinan Station to Miyazaki Airport building as joint project of 4th Port and Harbor Bureau of Transport Ministry, Miyazaki Prefectural Government and JR Kyushu. Trains to reach Miyazaki Airport directly, and about 3.5-km section from Minami-Miyazaki to Miyazaki Airport to be electrified. Commercial service scheduled to start in fiscal 1996</li> <li>• Four armed robbers hijacked 40-seater bus in Pyatigorsk, Caucasia, southern Russia, demanding ransom of \$15 million and helicopter for escape. Special police squad made surprise attack on hijackers when about to board helicopter with hostages. Hand grenade exploded by hijacker killed four hostages and one hijacker and injured six police</li> <li>• Number of visitors to Tokyo Disneyland since opening in April 1983, reached 150 mil-</li> </ul> | <p>3 August</p> <p>4 August</p> <p>5 August</p> <p>8 August</p> <p>10 August</p> <p>11 August</p> | <ul style="list-style-type: none"> <li>• lion. Number of visitors increased at double pace compared to parent, Disneyland, Los Angeles. 150 millionth person was company employee from Kobe City visiting with three family members. Presented with certificate, 5-year free pass and other gifts</li> <li>• Six-car electric train bound for Osaka from Shin-Mita collided with 2-tonne truck at crossing (with alarm) on JR Fukuchiyama Line. First car derailed and overturned, second car derailed, killing one passenger and truck driver and slightly injuring another passenger</li> <li>• Railway equipment investment by 15 leading private railway companies including Tobu Railway and Kinki Nippon Railway total ¥399 billion this fiscal year, down ¥6 billion from last fiscal year, according to investment plans announced by Japan Non-Government Railways Association. Investments broken down into ¥198.6 billion for transport capacity expansion including construction of double-double track lines, ¥145.5 billion for safety measures including construction of crossings, ¥321.7 billion for improved services including air-conditioned cars</li> <li>• Russian military AN12 propeller transport plane crashed on landing at military airport west of Chita, western Siberia, killing all 47 officers and others aboard</li> <li>• JR West filed applications with Osaka and Tokyo stock exchanges for listing on stock markets. JR West second of JR companies to apply for listing, following JR East</li> <li>• Korea Airlines Airbus A300 (with 160 crew and passengers) from Seoul crashed on landing at Cheju International Airport. Over-ran runway, smashed into security facility and burned. All passengers and crew escaped, with 15 slightly injured</li> <li>• Southbound express train bound for Masan from Taegu collided head-on with north-</li> </ul> |
|--|---|---|---|---|--|

- bound express train bound for Taegu from Pusan on Kyongpu line in Milyang County, South Kyongsang Province, South Korea, killing four (two engine drivers, one assistant and one passenger) and injuring about 200 passengers, some seriously
- 11 August • Suburban train smashed into derailed freight train in Belgorod, central Russia, killing at least 17 and injuring 40
- 13 August • Train bound for Shenyang in Guangzhou Province from Guilin exploded in Chuan autonomous region of Guanxi Province
- 14 August • Several front cars of passenger train derailed and overturned as smashed into standing freight train near Tbilisi, Gruzia, killing at least 20 passengers and injuring many others
- 18 August • Ceremony held to mark start of shield machine drilling 9.4-km submarine tunnel section of 15km link across Tokyo Bay between Kawasaki in Kanagawa Prefecture and Kisarazu City in Chiba Prefecture. Shield machine about 14 m in external diameter (largest in world) and about 13.5 m in length. Machine moves ahead as 1142 cutters at head rotate, while ferro-concrete inner walls assembled automatically. Tunnel scheduled for completion in 1996
- 20 August • 1.9-km Astramline, new traffic system connecting central Hiroshima with Hiroshima Port outside city, started commercial service as ninth of kind in Japan. One-man operated system, with 1.9-km underground section in city center scheduled for use by Asian games opening on 2 October
- 21 August • Morocco Airline's propeller plane crashed north of Agadir in southern Morocco, killing all 4 crew and 40 passengers. Captain crashed plane deliberately to commit suicide
- 25 August • Super-high rise twin building called JR Central Towers to be built at Nagoya Station. Main building with four basement floors and 18 floors above ground, and two other buildings: 51-storey office building (240 m) and 53-storey hotel building (230 m). Scheduled for completion in 1999
- 1 September • JRs announced special group discount for students be applied to groups of less than 15
- 4 September • 24-hour Kansai International Airport opened for service on man-made island in Osaka Bay with network connecting 22 countries and 24 domestic cities
- 5 September • JR East held first R&D symposium, For Renovation of Technical Service Industry, in Tokyo to search for development targets for railway technologies in next century. Commemorated ideas of late Isamu Yamashita, adviser to JR East, who devoted himself to JR East's technical development
- 8 September • US Air domestic B737 (with 127 passengers and 5 crew) bound for West Palm Beach, Florida, from Pittsburgh via Chicago, crashed and burned at Pittsburgh International Airport, Pennsylvania, just before landing killing all aboard. US Air fifth air accident in 5 years, with three accidents involving B737s
- 9 September • Tu136 passenger plane in flight training collided in midair with Tu22 strategic bomber. Tu136 crashed and burned, killing all 8 crew aboard. Tu22 made emergency landing safely on nearby airstrip
- 12 September • Single-engine Cessna crashed in south garden of White House. Pilot killed. President Clinton and family safe in Blair House. Possibility of terrorism denied
- 18 September • Nigerian passenger plane bound for Lagos from Tunis crashed on landing near Tamanrasset in southern Algeria, killing four of 46 crew and passengers and injuring 23 others
- 23 September • Heavy transport plane made unsuccessful take-off and ran off runway into sea at Kai Tak Airport, Hong Kong Six people saved but three killed, and another three reported missing
- 26 September • Yakoblev 40 passenger plane crashed in central Siberia due to bad weather, killing all 26 crew and passengers Third air accident this year in Siberia
- 27 September • JR East with Odakyu Electric Railway to construct super-high rise twin building, named JR East Japan Head Office Building/Odakyu Shinjuku South Building on south side of Shinjuku Station JR East Japan Building to be 28 storeys with four basement floors and total floor area of about 79,199 m<sup>2</sup> Odakyu Building to be 36-storeys with four basement floors and total floor area of about 79,600 m<sup>2</sup> Scheduled for completion in fiscal 1997
- 28 September • Large RoRo ferry Estonia bound for Sweden from Estonia ran aground and sank in Baltic Sea off Finland. Of 1,049 crew and passengers, 140 saved, 65 dead and 844 reported missing
- 1 October • 30 years passed since Tokaido Shinkansen made debut as "dream super-express" In meantime, carried total of 2.8 billion passengers with no deaths. Total distance cov-



■ Tokaido shinkansen Mishima Depot in early 1970s

- ered about 1.04 billion km, equal to about 26,000 times around globe. Time to cover distance between Tokyo and Shin-Osaka shortened from 4 hours in initial period to 2 hours and 30 minutes
- 14 October • Ceremony held to celebrate establishment of "Railway Day" (14 October) at hotel in Shinjuku, Tokyo, with attendance of Prince and Princess Akishino
- 14 October • Sapporo Municipal Subway opened subway service in Hosui Susukino- Fukuzumi section (5.6km) on Toho Line, completing subway artery running through city from south to north, together with already completed northern half section (between Sakaemachi and Hosui Susukino)
- 15 October • British Rail trains collided head-on on single track line in morning in Cowden, Kent, in outskirts of London, killing five passengers and others and injuring at least 11. Thick fog hung low over accident
- 16 October • Ferryboat fully loaded with passengers capsized in rough sea off southeast Bangladesh, with more than 150 passengers reported dead or missing. Another ferryboat overturned in country in latter part of August, claiming lives of about 250 passengers
- 19 October • Public bus exploded in Tel Aviv, killing 22 passengers and injuring 48 others. After incident, extremist organisation claimed responsibility for explosion in statement to local media
- 19 October • Ansett Australia Boeing 747-200, flight number 881, bound for Kansai International Airport from Sydney Airport, Australia, failed on landing but none of 273 passengers and crew injured. Accident occurred when airplane returning to airport after abnormality found in hydraulic system after take-off
- 20 October • 2-car commuter bus collided with freight train at unmanned crossing in Beijing early in morning, killing 20 and injuring more than 30 persons
- 21 October • Central part (about 50-m long) of Songsu Big Bridge (about 1,160m long, and 19.4m wide), spanning Hangang River in central part of Seoul suddenly collapsed early in morning, and city buses and passenger cars fell about 20m into river, killing 32 persons and injuring 17. Bridge completed in October 1979 by truss construction method
- 22 October • Tanasis, Maltese-registered, 19,855-tonne deadweight tanker, sank in storm in South China Sea about 300km off Ilocos Sur Province in southern part of Luzon Island, Philippines. Of 36 crewmen, 17 reported missing. Tanker on voyage from Nakhodka, Russia, to Singapore
- 24 October • Chungju No. 5,55 tonne pleasure boat, with 131 passengers and crew aboard, burned on Lake Chungju in Tanyang County, North Chungchong Province, South Korea. 25 dead, 4 missing and 33 injured, some seriously. Another ship disaster occurred in October 1993, when ferryboat sank in Yellow Sea, killing 292
- 28 October • Ground-breaking ceremony held for construction of New Joban Line in front of Akihabara Station, starting point of line. New Joban Line attracting attention as new railway line to connect centre of Tokyo to southern part of Ibaraki Prefecture. First case to which special law intended to promote railway construction together with housing development applied. Construction cost about ¥80 billion, and new railway line scheduled to be put into service in year 2000
- 28 October • Ceremony held to start construction work on Kitakyushu airport planned on man-made island off Kanda-machi in Fukuoka Prefecture. Airport with 2,500m runway, scheduled to be completed in 2005 at total construction cost of ¥215 billion
- 28 October • Time-bomb planted in passenger train exploded in western part of Cambodia, killing 7 passengers and seriously injuring 10 others
- 29 October • airplane accidents occurred one after other in Siberia, Russia, killing at least 26 passengers and crewmen. Antonov 2 airplane, belonging to private airline company Aeronika, failed in landing and burned at Ust-Ilimsk Airport north of Irkutsk, killing 21 passengers. Engine of single-engined Antonov 2 airplane, owned by local airline company Yakutavia, ignited north of Yakutsk just after take-off. Tried to return to airport but failed on landing and burned, killing 5 and injuring 9
- 31 October • American Eagle's large commuter plane, Super ATR 72 (double-engined turboprop plane), bound for Chicago from Indianapolis, crashed just before landing at O'Hare International Airport at Chicago, Indiana, killing all 68 passengers and crew. In United States, two of U.S. Air's airplanes crashed one after other in July and September, claiming lives of 169 passengers and crew
- 1 November • JR East developed next-generation electric train, TRY-Z (E 991 series), to run on existing railway tracks with designed maximum speed of 200km/h. Running tests started on Joban line to raise previous highest speed of 130km/h on conventional lines to 160km/h. Three cars, operating on both AC and DC, with aluminium bodies, make up train. Equipped with newly designed brakes to respond to high speed operation
- 2 November • World Tourism Forum '94 held in Osaka until 6 November under theme of "Tourism Designing for Future of Earth", attended by government officials concerned with tourist administration, including ministers, from 96 countries and regions of world
- 3 November • SAS airliner (MD80) hijacked by man with hand-grenade while flying over northern part of Norway. Plane forced to land at Gardermoen Airport near Oslo. Hijacker called for

- humanitarian aid to civil war-torn Bosnia, but surrendered. All 128 passengers and crew safe
- 9 November • Medium-sized bus smashed crossing gate and hit by train in Honan Province, China, killing 16 and injuring 35 others, some seriously
- 11 November • Bus fell into lake in State of Assam in north-east of India, killing at least 56 persons
- 14 November • Eurotunnel started super-express train service between Paris-Brussels-London with two runs a day from Monday to Friday and one run on Sundays (no run on Saturdays). First class fare of 810 francs. Takes three hours from Paris, and 3 hours and 15 minutes from Brussels, to London
- 18 November • JR Cargo, which posted first deficit in FY1993, formulated "Freight 21" as 10-year mid-term reconstruction plan, envisaging restructuring transportation system on basis of container transportation and boosting revenue to ¥265 billion by 2003 (¥205.8 billion for FY1993). At same time, plan aims to promote early retirement and reduce employment in railway transportation sector to 7,000 persons (against 9,200 at present)
- 21 November • 22m section of upper bridge for pedestrians collapsed in Seoul, Korea, as trailer running on lower bridge for vehicles hit girder, and fell on four cars, including bus and taxi, on opposite lane, killing bus driver and one passenger, and injuring 8 bus passengers, some seriously. One month earlier, Songsu Big Bridge collapsed
- 22 November • 2-engined plane moving onto runway touched TWA MD80, taking off for Denver, at Lambert International Airport, St. Louis, Missouri, USA. 2-engined plane burned, killing pilot and another person on board and eight passengers on TWA plane injured lightly
- 24 November • TU134 passenger plane, bound for Minsk via St. Petersburg from Komi Republic in Urals, Russia, hijacked. Three hijackers surrendered after plane arrived at Tallinn Airport, Estonia 30 November
- 30 November • Achille Lauro, 23,478-tonne deadweight Italian passenger ship, burned off Somalia, North Africa, killing 3 and injuring 8 of about 1,000 passengers. Survivors left ship on life-boats and rescued by tanker and other ships nearby. Achille Lauro hijacked by Palestinian guerrillas in Mediterranean in October 1985, with about 400 passengers made hostage
- 2 December • M.V. 70, 2,450-tonne ferry-boat, with 540 passengers and crew, collided with Kota Suria, 12,000-tonne Singaporean cargo ship, at mouth of Manila Bay, Philippines, and sank. 447 passengers rescued, but 34 dead and 115 reported missing
- 2 December • Express train derailed and turned over at Szajol south-east of Budapest, Hungary, hitting station building, killing at least 29 passengers and station building workers
- 3 December • Third-sector Chizu Express Railway line (56.1km between Kamigori and Chizu), connecting Osaka-Kobe area with Sanin district opened. Super Hakuto, express connection with JR, shortened travel time between Osaka and Tottori to 2 hours and 30 minutes
- 7 December • Extended section between Nerima and Shinsakuradai (1.4km) of Seibu Line opened service to connect with Ikebukuro Line. Also connected to existing section between Shinsakuradai and Kotake-mukaihara (1.2km) to be further linked to Yurakucho Line of Eidan Subway. New tracks laid for Yurakucho Line of Eidan Subway between Kotake-mukaihara and Ikebukuro (3.2km) to complete four-track line. New Station at Shinsen Ikebukuro
- 10 December • Fire at midnight at substation of JR East at Shinjuku, Tokyo, suspending JR railway services in metropolitan area. Power supply restored shortly after noon on 11 December. 741 trains suspended, in conveniencing 233,000 persons.
- 11 December • Explosion in central cabin of Philippine Air Lines' B747 bound for Narita from Manila via Cebu Island. Airplane made emergency landing at Naha Airport. 24-year old Japanese man killed by explosion caused by bomb
- 13 December • American Eagle's Jet Stream Super 31, short-distance take off double-engined turboprop plane, crashed near Raleigh Durham International Airport, with 20 passengers and crew aboard 13 killed. Same airline company had air accident in Indiana at end of October.
- 21 December • Explosive ignited in subway car near Wall Street, New York, and passengers panicked by flames and smoke. Fire extinguished by off-duty policeman. At least 41 passengers taken to hospital with burns and other injuries
- 22 December • Eurotunnel started passenger car train service, Le Shuttle connecting Folkestone with Calais in 35 minutes
- 24 December • Air France Airbus A 300, about to take off at Algiers International Airport, Algeria, with 283 passengers and crew aboard, hijacked by 4 armed guerrillas. Group belonged to fundamentalist Islamic extremists. Plane flew to Marseille in South France after 3 passengers killed. France's anti-terrorist commandos, standing by at Marianne Airport, stormed plane and killed all guerrillas liberating all 173 hostages. 25 persons, including 9 commandos injured, some seriously
- 28 December • Major earthquake, with epicentre off Sanriku district measuring 6 on Japanese scale at Hachinohe City, Aomori Prefecture, killed 2 and injured 285. Railway track in Hachinohe - Noheji section of JR Tohoku Line collapsed, suspending train service. About 52,500 persons hurrying home at year-end compelled to make roundabout trip

29 December • Turkish domestic airliner, B737 bound for Van from Ankara, crashed with 76 passengers and crew aboard, near Van Airport killing 54 and injuring 22. Visibility poor due to snowstorm

## Milestones

**Tooru Nakamura**, 59, former Vice Minister of Transport, became President of New Tokyo International Airport Corporation on 30 July succeeding Cho Yamamoto, who retired. Graduated from Tokyo University and began work at Transport Ministry in 1958. Became consultant to Transport Ministry in July 1993 after serving as Director-General of Transport Policy Bureau and Vice Minister of Transport

**Toshio Tamakawa**, 78, director of JR East Japan died on 13 September. Graduated from Commercial Department of Waseda University in 1938. Began work at Tohoku Haiden (predecessor of Tohoku Electric Power), and became President after serving as Managing Director and Vice President. Became non-regular director of JR East at establishment in 1987. Retired as President of Tohoku Haiden and became Director-Consultant from 1993. Served as President of Tohoku Federation of Economic Organizations from 1983 to 1993, and made efforts to develop Tohoku Intelligent Cosmos Concept through cooperation of government, academia and industry, to develop Tohoku district into international center of Japanese research and industrial development.

**Hideo Shima**, 93, former Vice Chairman/Engineering of Japanese National Railways and President of National Space Agency, awarded Order of Cultural Merits on 3 November. After graduating in mechanical engineering from Imperial University of Tokyo in 1926, joined then Ministry of Railways where started career as locomotive designer. After assuming posts of Chief of Hamamatsu Works and Director General of Rolling Stock Department, retired as board member of JNR in 1951. Four years later, returned to JNR at request of then President Shinji Sogo, and appointed Vice Chairman/Engineering. Mr Sogo's firm determination and Mr Shima's engineering genius created Tokaido Shinkansen, world's first dedicated high-speed passenger railway. Although left JNR in 1963 with Mr Sogo, without seeing birth of brainchild in 1964, awarded many prizes and honours for contribution to shinkansen, including Sperry Prize by American Society of Mechanical Engineers and James Watt Gold Medal by

British Institute of Mechanical Engineers. Became President of National Space Development Agency (NSDA) in 1969, where led Japan's space development programme until 1977. At 93, still active as advisor to NSDA, and wrote memoir on birth of shinkansen for October 1994 issue of this magazine.



■ Mr Hideo Shima

**Tatsuzo Toshimitsu**, 74, board chairman of Odakyu Electric Railway, died on 5 November. After graduating from Rikkyo University, first worked for Tokyu Electric Railway in 1948. Became president in 1981 and served as board chairman from June 1991. As highest leader of Odakyu group, endeavored to strengthen group's business foundations by leading it to diversify into department stores, hotels, real estate and construction business on basis of electric railway. Served as president of Japan Non-Government Railways Association for 2 years from May 1989. Awarded First Order of Sacred Treasure in November 1991.

**Yoshiaki Yamada**, 79, former president of Teito Rapid Transit Authority (Eidan), died on 29 November. After serving as director of Eidan Subway, assumed post of vice-president of JNR in 1969. Later served on Transport Council and as president of Eidan Subway. Awarded First Order of Sacred Treasure in April 1987.

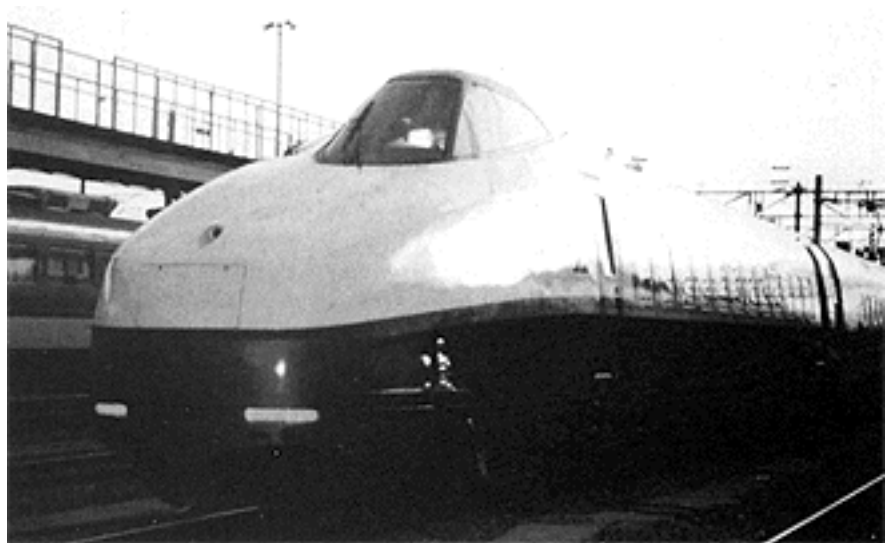
### Corrections to October 1994 issue

- *Mallard* on page 58 should read *Mallet*
- 18-year-old on page 54 should read 14-year-old

# New Test Trains Unveiled

## Try-Z narrow-gauge high-speed EMU E-991 test trainset

JR East unveiled the E-991 three-car narrow-gauge test trainset in November 1994 and started a series of test runs on the Joban Line along the Pacific coast, north of Tokyo. Nicknamed Try-Z, the Series E-991 has three major design concepts: cost-effectiveness, environment-friendliness and artificial intelligence supported by advanced computer technologies. All three cars (powered driving coaches at both ends and an intermediate trailer coach) have tilting aluminium bodies. The two powered cars are driven by eight three-phase induction motors controlled by VVVF inverter control units. All cars are equipped with hydraulic brakes in place of conventional air brakes. To reinforce braking in an emergency, large permanent magnets are installed beneath the bogies. When the magnets are pressed on the rails, high braking



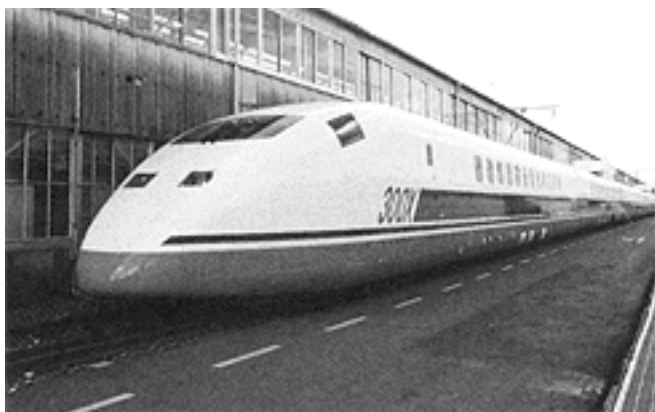
■ TRY-Z Test Train

(JR East)

force is obtained by both friction and generated eddy current.

Try-Z is being used to test various high-tech pos-

sibilities on conventional narrow-gauge track including commercial running at more than 160 km/h.



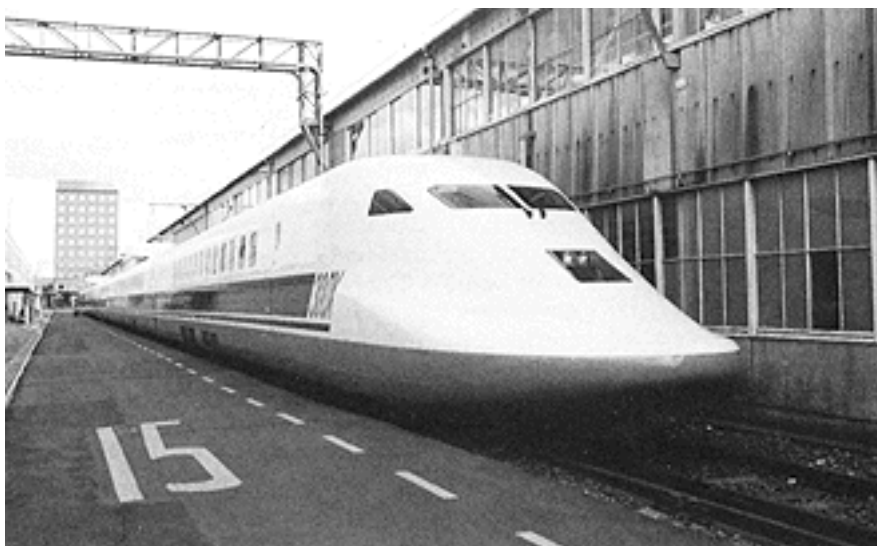
■ 300X Test Train

(JR Central)



■ TRY-Z Test Train

(JR East)



■ 300X Test Train

(JR Central)

## Shinkansen EMU 300X test trainset

JR Central unveiled the Series 300X six-car test trainset in December 1994. All six cars have aluminium bodies and all axles are driven by VVVF-controlled three-phase induction motors with a continuous rating of 405 kW.

Two cars are equipped with a body-tilting mechanism. The driving cars at both ends have different nose shapes to test air resistance at very high speeds. A series of test runs started in January 1995 between Shizuoka and Hamamatsu on the Tokaido Shinkansen; from May 1995 the trainset will be tested at very high speeds between Maibara and Kyoto.