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# REVIEW OF MARITIME TRANSPORT, 2002

## Chapter V
## Port development

**UNITED NATIONS**
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# Chapter 5

# PORT DEVELOPMENT

*This chapter covers container port throughput for developing countries, improving port performance, institutional changes in ports and security measures in ports.*

## A. CONTAINER PORT TRAFFIC

Table 42 gives the latest available figures on reported world container port traffic in developing countries and territories for the period 1998–2000. The world growth rate for container port throughput (number of movements measured in TEUs) increased by 15.4 per cent in 2000. This was more than double the growth of the previous year, which was 7.3 per cent, and reflects the booming trading conditions that prevailed in 2000. Throughput for 2000 reached 225.3 million TEUs, an increase of 30 million TEUs from the 1999 level of 195.3 million TEUs.

The rate of growth for developing countries and territories was 14.5 per cent with a throughput of 94.1 million TEUs, which corresponds to 41.8 per cent of world total throughput. The growth rate was better than that of 1999 – 10.9 per cent – when developing countries' throughput was 82.1 million tons. Places with double-digit growth in 2000 and 1999 were Argentina, Bangladesh, Brazil, Colombia, Egypt, Hong Kong (China), India, Indonesia, Malaysia, Mexico, Morocco, Oman, Panama, the Philippines, Senegal, Trinidad and Tobago and Yemen. The recorded growth rate of developing countries varies from year to year, owing sometimes to strong fluctuations in trade and sometimes to improved reporting of data or lack of data for some years.

Preliminary figures for 2001 are available for the leading 20 world ports handling containers, and the results are indicated in table 43. The list included 10 ports in developing countries and territories and socialist countries in Asia, with the remaining 10 located in market-economy countries. Of the latter, six ports were in Europe, three in the United States and one in Japan. Hong Kong (China) maintained its leadership even though it reported a drop of 1.1 per cent in growth rate. There were three newcomers on the list, all of them from Asia: Shezhen and Quingdao from China and Manila from the Philippines. As a result, nine ports lost their positions in the list while two moved up one place, Shanghai to place 5 and Bremerhaven to place 15. The top four places on the list remained unchanged. Only three ports, Shanghai, Hamburg and Port Klang, reported double-digit growth rates in 2001 and 2000. The top 20 ports for 2001 recorded a total of 107.4 million TEUs in the year 2000, equivalent to 47.7 per cent of the world throughput.

## B. IMPROVING PORT PERFORMANCE

During 2001 average stevedoring productivity for container handling in five major Australian ports (Adelaide, Brisbane, Fremantle, Melbourne and Sydney) increased. Container movements per crane per hour increased by 11.9 per cent to 26.3 containers, while average productivity per vessel increased 11.4 per cent to reach 40.9 containers per ship per hour. Nevertheless, the total throughput of these ports increased by less than 1 per cent to 3.9 million TEUs.

Two years of impressive increases in container throughput were recorded in the Jawaharlal Nehru Port Trust (JNPT), which in 2001 celebrated its 12th anniversary. In March 2001, JNPT was the first port in India to pass the 1 million TEUs mark, reaching 1.19 million TEUs, an increase of

Table 42

**Container port traffic of 48 developing countries and territories in 2000, 1999 and 1998**

*(in TEUs)*

| Country or territory | TEUs 2000 | TEUs 1999 | TEUs 1998 | % change 2000/1999 | % change 1999/1998 |
|---|---|---|---|---|---|
| Hong Kong, China | 18 100 000 | 16 210 762 | 14 582 000 | 11.7 | 11.2 |
| Singapore | 17 096 036 | 15 944 793 | 15 135 557 | 7.2 | 5.3 |
| Republic of Korea | 8 530 451 | 7 014 245 | 6 460 461 | 21.6 | 8.6 |
| United Arab Emirates | 5 055 026 | 4 930 299 | 4 531 625 | 2.5 | 8.8 |
| Malaysia | 4 612 615 | 3 941 777 | 3 026 447 | 17.0 | 30.2 |
| Indonesia | 3 863 569 | 2 660 439 | 2 203 274 | 45.2 | 20.7 |
| Philippines | 3 604 713 | 2 813 099 | 2 442 158 | 28.1 | 15.2 |
| Thailand | 3 268 541 | 2 892 216 | 2 638 906 | 13.0 | 9.6 |
| Panama | 2 369 715 | 1 649 512 | 1 425 788 | 43.7 | 15.7 |
| Brazil | 2 341 227 | 2 022 842 | 1 743 639 | 15.7 | 16.0 |
| India | 2 313 637 | 1 954 025 | 1 745 669 | 18.4 | 11.9 |
| Sri Lanka | 1 732 855 | 1 704 389 | 1 714 077 | 1.7 | -0.6 |
| Egypt | 1 783 956 | 1 520 523 | 1 131 795 | 17.3 | 34.3 |
| Saudi Arabia | 1 502 893 | 1 448 338 | 1 366 746 | 3.8 | 6.0 |
| Mexico | 1 311 137 | 1 083 887 | 945 087 | 21.0 | 14.7 |
| Oman | 1 161 549 | 773 806 | 139 090 | 50.1 | 456.3 |
| Argentina | 1 141 113 | 1 021 973 | 806 674 | 11.7 | 26.7 |
| Malta | 1 082 235 | 1 091 364 | 1 118 741 | -0.8 | -2.4 |
| Chile | 1 065 413 | 743 364 | 758 992 | 43.3 | -2.1 |
| Pakistan | 774 943 | 696 649 | 701 213 | 11.2 | -0.7 |
| Jamaica | 765 977 | 689 677 | 671 130 | 11.1 | 2.8 |
| Colombia | 759 535 | 413 935 | 88 130 | 83.5 | 369.7 |
| Venezuela | 715 807 | 654 148 | 830 109 | 9.4 | -21.2 |
| Bahamas | 572 224 | 543 993 | 470 047 | 5.2 | 15.7 |
| Costa Rica | 570 000 | 590 000 | 450 000 | -3.4 | 31.1 |
| Dominican Republic | 509 389 | n.a | n.a | - | - |
| Côte d’Ivoire | 434 654 | 463 835 | 468 727 | -6.3 | -1.0 |
| Bangladesh | 456 007 | 392 137 | 345 327 | 16.3 | 13.6 |
| Iran, Islamic Republic of | 427 747 | 320 622 | 325 904 | 33.4 | -1.6 |
| Ecuador | 414 104 | 378 000 | 407 434 | 9.6 | -7.2 |
| Peru | 413 646 | 376 045 | 378 013 | 10.0 | -0.5 |
| Trinidad and Tobago | 347 934 | 298 553 | 270 204 | 16.5 | 10.5 |
| Morocco | 366 692 | 322 968 | 275 710 | 13.5 | 17.1 |
| Uruguay | 287 298 | 250 227 | 265 892 | 14.8 | -5.9 |
| Algeria | 297 489 | 270 742 | 228 160 | 9.9 | 18.7 |
| Lebanon | 263 000 | 271 409 | 290 409 | -3.1 | -6.5 |
| Cyprus | 259 096 | 239 077 | 214 030 | 8.4 | 11.7 |
| Yemen | 247 913 | 121 563 | 57 537 | 103.9 | 111.3 |
| Kenya | 236 928 | 232 510 | 248 451 | 1.9 | -6.4 |
| Nigeria | 233 587 | 225 777 | 166 336 | 3.5 | 35.7 |
| Tunisia | 230 671 | 214 693 | 173 746 | 7.4 | 23.6 |

Table 42 (continued)

| Country or territory | TEUs 2000 | TEUs 1999 | TEUs 1998 | % change 2000/1999 | % change 1999/1998 |
|---|---|---|---|---|---|
| **Ghana** | 209 484 | 235 743 | 199 028 | -11.1 | 18.4 |
| **Guatemala** | 190 794 | 151 493 | 144 085 | 25.9 | 5.1 |
| **Kuwait** | 185 904 | 173 383 | n.a | 7.2 | - |
| **Senegal** | 165 000 | 148 740 | 115 039 | 10.9 | 29.3 |
| **Reunion** | 155 877 | 146 172 | 145 286 | 6.6 | 0.6 |
| **Mauritius** | 157 420 | 144 269 | 136 417 | 9.1 | 5.8 |
| **Martinique** | 152 376 | 141 700 | 135 700 | 7.5 | 4.4 |
| **Papua New Guinea** | 140 872 | 138 110 | 144 630 | 2.0 | -4.5 |
| **Guam** | 132 689 | 145 191 | 163 855 | -8.6 | -11.4 |
| **Guadeloupe** | 129 991 | 104 000 | 103 473 | 25.0 | 0.5 |
| **Djibouti** | 127 126 | 128 791 | 136 217 | -1.3 | -5.5 |
| **Cameroon** | 127 000 | 121 563 | 118 374 | 4.5 | 2.7 |
| ***Total*** | 93 395 855 | 81 167 368 | 72 785 339 | 15.0 | 11.7 |
| **Other reported**[a] | 683 382 | 962 004 | 1 259 355 | -29.0 | -23.6 |
| **Total reported**[b] | 94 079 237 | 82 129 372 | 74 044 694 | 14.5 | 11.1 |
| ***World total*** | **225 294 025** | **195 261 458** | **181 982 976** | **15.4** | **7.3** |

*Source*: Derived from information contained in *Containerisation International Yearbook 2002* and from information otained by the UNCTAD secretariat directly from terminal operators and port authorities.

[a] Comprises developing countries and territories where less than 95,000 TEUs per year were reported or where a substantial lack of data was noted.

[b] Certain ports did not respond to the background survey. While they were not among the largest ports, total omissions may be estimated at 5 to 10 per cent.

33.7 per cent from previous year. In March 2002, after a 22.9 per cent increase, it reached 1.46 million TEUs, of which 0.88 million TEUs was achieved in the Nhava Sheva terminal, operated by P&O Ports, and the remaining 0.57 million TEUs in the terminal operated by JNPT. The port, which has gained ISO 9002 Certification, is still deemed too expensive, and suggestions to merge the two terminals in order to achieve economies of scale have been voiced.

In Rotterdam the number of spills by seagoing and inland vessels decreased by 13.6 per cent to 344 incidents, of which 74 required cleaning operations. This decrease is the result of increased awareness by bunker operators and more frequent inspections by the patrol fleet. New rules for compulsory pilotage have been applied in this port since mid-2001. Only vessels less than 70 metres long were exempted, and those between 70 and 90 metres long were exempted under very stringent conditions.

Maintaining excellent productivity in Singapore was not enough to retain another leading carrier, Evergreen. In April 2002, the carrier decided not to renew its current contract, which was due to expire the following August, and instead to move its major east-west services to Tanjung Pelepas (Malaysia), which is believed to offer rates 50 per cent lower.

In other ports, performance deteriorated because of several factors. During the second half of 2001, stoppages and strikes hit Durban, the major South African container port. By mid-September carriers were concerned, with excessive vessels delays ranging from 29 to 95 hours. In November trade unions opposed stevedoring companies' use of non-union labour through brokers, and this was followed by a dispute between the unions and the port operator company concerning the payment of bonuses. A one-week strike left a backlog of cargo and vessels, which by late December was almost cleared. However,

Table 43

**Top 20 container terminals and their throughput, 2001 and 2000**

*(in TEUs)*

| Port | TEUs 2001 | TEUs 2000 | 2001-2000 | 2000-1999 |
|---|---|---|---|---|
| **Hong Kong, China** | 17 900 000 | 18 100 000 | -1.10 | 11.70 |
| **Singapore** | 15 520 000 | 17 040 000 | -8.90 | 6.90 |
| **Busan** | 7 906 807 | 7 540 387 | 4.90 | 17.10 |
| **Kaohsiung** | 7 540 524 | 7 425 832 | 1.50 | 6.30 |
| **Shanghai** | 6 340 000 | 5 613 000 | 13.00 | 33.30 |
| **Rotterdam** | 5 944 950 | 6 275 000 | -5.30 | -1.10 |
| **Los Angeles** | 5 183 519 | 4 879 429 | 6.20 | 27.40 |
| **Shezhen** | 5 076 435 | 3 993 714 | 27.10 | 34.00 |
| **Hamburg** | 4 688 669 | 4 248 000 | 10.40 | 13.60 |
| **Long Beach** | 4 462 967 | 4 600 787 | -3.00 | 4.40 |
| **Antwerp** | 4 218 176 | 4 082 334 | 3.30 | 13.00 |
| **Port Klang** | 3 759 512 | 3 206 428 | 17.20 | 25.70 |
| **Dubai** | 3 501 821 | 3 058 886 | 14.50 | 7.50 |
| **New York** | 3 316 275 | 3 006 493 | 10.30 | 5.00 |
| **Bremerhaven** | 2 896 381 | 2 712 420 | 6.80 | 24.40 |
| **Felixtowe** | 2 800 000 | 2 800 000 | 0.00 | 3.80 |
| **Manila** | 2 796 000 | 2 867 836 | -2.50 | 33.60 |
| **Tokyo** | 2 770 000 | 2 960 000 | -6.40 | 9.80 |
| **Quingdao** | 2 640 000 | 2 120 000 | 24.50 | 37.00 |
| **Gioia Tauro** | 2 488 332 | 2 652 701 | -6.20 | 17.70 |

*Source*: *Containerisation International*, March 2002, and *Port Development International*, April 2002.

productivity did not cope with the remaining traffic, and in January 2002 carriers announced plans to impose a surcharge of $75 per TEU from mid-February when average vessel delays over the last two months exceeded 12 hours. Successive negotiations postponed this surcharge until May, but increases in port tariffs were announced for that month, together with the construction of a new container berth for Durban. Moreover, the South Africa Port Authority announced the start of the tendering process for construction of the $163 million Coega port on the east coast, north of Port Elizabeth.

Strikes also affected other ports. Dockers from European Union ports located in France, Greece, Portugal, Spain and Sweden stopped work on 6 November 2001 to protest the proposed EEC Directive authorizing carriers to undertake cargo handling. In the same month, Indian port workers also stopped work to protest the effects of globalization. During the last quarter of 2001, labour implemented go-slow tactics at the Chennai (India) port to protest the reallocation of personnel to the P&O container facility by the Chennai Port Trust Authority. This worker action reduced productivity in the port. The concessionaire took over the facility in December and brought in spare parts and new equipment to cope with the backlog and counter the $75-per-TEU surcharge imposed by feeder carriers to export boxes.

In other ports, operational efficiency suffered for different reasons. In Bremerhaven (Germany), a change of software for container handling resulted in chaos because the hardware was incompatible with computer terminals, and the north terminal was stalled for up to 12 hours. Rio Grande (Brazil) was battered by a severe storm over a weekend in October 2001, and in November heavy winds forced Barcelona to close for one day.

The provision of marine services was a concern in other ports. During 2001 in the United Kingdom ABP, the harbour authority on the Humber River in England, entered into conflict with Humber Pilots Ltd., the independent body to which its pilots belong. In early

December the pilots decided to strike, after a ruling by the London Court of Appeal had stated that they were indeed ABP employees and were therefore entitled to take this action within the framework of an industrial dispute. The strike started in mid-December and went on for about six weeks, with ABP countering it with newly engaged and trained pilots. Service to shipping was maintained, although with a number of incidents that prompted allegations of the pilots' lack of experience and limited number. By the end of January 2002, ABP terminated its agreement with Humber Pilots Ltd. and imposed its new pilotage service on the Humber.

A shortage of pilots was apparent in Indian ports, notably Mumbai, in early 2002. In India, a suspension of night navigation by the 50 pilots licensed to operate on the Hooghly River hampered Haldia Docks.

In the United States, the effect of restrictive practices used by some dry bulk terminals located on the lower Mississippi River came to the attention of the Federal Maritime Commission (FMC). Vessel operators and shipping agents had complained that those terminals had entered into exclusive arrangements with tug companies that resulted in price increases of between 12 and 51 per cent. The FMC also started an investigation of two long-standing exclusive tug arrangements in the ports of Everglades and Canaveral in Florida.

The impact of the financial crisis on port activity was evident in Argentina. Subsidies for Hidrovia, which is in charge of maintaining 1,000 kilometres of waterways used for international traffic in the River Plate, were reduced from $40 million to $22 million, and toll increases were announced for 2002. Also, after the freezing of bank accounts, the transfer of money was not possible for almost two weeks at the end of the year and created havoc for shipping agents, notably in connection with payments.

Disciplinary action took place in some ports. In Chittagong (Bangladesh), a number of port officials were suspended from duty following allegations of lack of interest into the investigation of a disappeared container in July 2001. In Thailand, similar measures were taken in connection with irregularities related to a dredging contract. In St. Petersburg (Russia), the fight against fraudulent clearance of cargoes led to more container inspections and staff suspensions.

In the Russian Federation, the transport minister said ports were handling more cargo, a 25-per cent increase up to the third quarter of 2001. Delays persisted due to a lack of wagons from regional railway companies. Major industrial companies began to show interest in port activities: Lukoil, the largest oil producer, won 22 per cent control of the port of Murmansk (Barents Sea); a large steelmaker, Severstal, acquired control of port management and stevedoring of the ports of Taganrog (Azov Sea) and Tuapse (Black Sea) in addition to controlling Vostochny (Far East); and another steelmaker acquired 60 per cent of the port company managing Nakhodka, in the Far East, to assure the reliability and control the cost of export facilities. In St. Petersburg, a $65 million new bulk terminal was opened in late December 2001 for shipping up to 7 million tons of potassium and phosphates and to recover some of the nearly 6 million tons being moved through non-Russian Baltic ports.

A number of existing facilities were expanded and new ones were commissioned during 2001. The innovative Ceres Paragon terminal in Amsterdam opened in June but, by the end of the year, had failed to attract users. A massive $465 million expansion of Le Havre (France) comprising six container berths, a jetty and a new access in the Seine river started in November. The finance includes a $34 million EEC subsidy and a 140 million Euros loan from the European Investment Bank. Barcelona awarded two contracts worth $290 million to extend its eastern and western breakwaters to a total of 6.8 kilometres, and work started in Algeciras to build a $16 million post-Panamax container terminal. In the Far East, the port of Kwangyang (Republic of Korea) completed four new container berths, one to be operated by Dongbu Co. and the others by HPH, Hanjin Shipping and Hyundai Merchant Marine respectively. In South Asia, construction delays at the QEII Colombo container terminal postponed its commissioning into 2002. Elsewhere, a 75-kilometre rail link between the two ends of the Panama Canal was commissioned in mid-year and started to move containers between the ports of Balboa (Pacific Ocean) and Manzanillo (Caribbean Ocean). The Zarate Container Terminal, a fully private financed facility located 90 kilometres upstream on the River Plate but close to the industrial area of Greater Buenos Aires, was commissioned in November. Also, a new 15-metre draught container terminal was commissioned at Pecem, near Fortaleza, in northeastern Brazil.

Port developments plans were announced in other ports, most of them financed by a combination of public and private funds. Container and LNG terminals valued at $129 million were under construction in Sines (Portugal) for commissioning in 2003. In 2002, the Republic of

Korea announced a $874 million investment to expand container facilities in Busan and Kwangyang, developing new ports in North Inchon and Mokpo and upgrading cargo handling facilities in a number of lesser ports. The depressed maritime trade of 2001 affected some developments: a scaled-down plan for a new container terminal in Laem Chabang was announced in February 2002. The 30-year lease would need a $61 million investment, instead of $75 million, and a guaranteed throughput of only 0.1 million TEUs, instead of 0.5 million TEUs, in the first year of operation. Elsewhere, the cost of inland transport infrastructure serving ports was borne partially by shippers. In the port of Los Angeles (USA), the Alameda Corridor Transportation Authority is levying a fee on the railroad moving traffic which is passed on to sea carriers using the railroad. Then the TransPacific Stabilization Agreement would charge $15 per loaded TEU to shippers, which would in effect pay about half of the investment of the Alameda Corridor. In Oakland, another port on the western coast of the United States, a new container terminal was completed in 2001 and a joint intermodal terminal in March 2002, as part of the port's expansion scheme.

Port performance also requires good relations with the neighboring city. Complaints from residents and tourist companies concerning container handling activities and expansion plans in the port of La Spezia (Italy) prompted the intervention of the port authority. In Rotterdam long-term plans were being prepared to convert the eastern part of the Waalhaven docks into residential areas.

## C. INSTITUTIONAL CHANGE

In 2001, Hutchison Port Holdings (HPH) a global container terminal operator based in Hong Kong (China), reached a throughput of 27 million TEUs in its terminals located in 30 ports around the world, an increase of 6 per cent over the previous year. The financial result was similar, a 9 per cent increase in revenues to $2 billion. These results reflect the performance of terminals outside Hong Kong, including those acquired from the Philippine operator ICTSI in June 2001. Following approval from Directorate IV of the European Commission in charge of enforcing competition rules, HPH was able to take majority shareholding in the ECT terminal in Rotterdam provided its shares in Delta terminal, another major terminal in Rotterdam, were disposed of. HPH sold these to Maersk, which then took full control of the Delta Terminal and added it to the network operated by its subsidiary APM Termines (whose throughput in 2001 was about 15 million TEUs). Moreover, HPH signed an agreement to develop phase III of the port in Yantian, in mainland China, which will require a $850 million investment to add four container berths with a water depth of 16 metres by 2006.

In the same year, PSA, the operating company of the port of Singapore, reported a total throughput of 19 million TEUs and a 2.3 per cent decrease in revenue to $1.2 billion. In August 2001, after the European Commission competition authority cleared the merger of Hessenatie and Noordnatie, these two major container operators in Antwerp became a single company with estimated revenues of 450 million Euros and throughput of 3.8 million TEUs. The new company was subsequently purchased, in April 2002, by PSA, which bought 80 per cent of the shares. PSA's focus is on meeting customer requirements through the automation of physical handling and the use of information and communication technologies to facilitate procedures for shippers and carriers. To encourage the use of the port, the Maritime and Port Authority of Singapore offered 20 per cent rebates for dues applicable to container trades.

Mergers and acquisitions rarely occur between port authorities. However, the ports of Copenhagen (Denmark) and Malmö (Sweden), located across the Strait of Oresund, merged in 2001 after considering the business opportunities arising from the completion of the Oresund Bridge. The merger required that the Copenhagen Port Authority become a state-owned limited company. The decision seemed justified when, in early 2002, Toyota announced the setting-up of a dedicated vehicle logistics centre for 100,000 vehicles to cover the Nordic market. During the year, voters refused a proposal to merge the port authorities of Houston and Galveston in Texas (USA), and the Indonesian Parliament rejected a government proposal to merge the four major ports of the country into a single entity and thus replace the country's current port organization, where all commercial ports are allocated among four port companies on a geographical basis.

Flexible collaboration schemes are being put into practice by Flemish ports in Belgium and between Rotterdam and Flushing, another Dutch port at the entrance of the Scheld, with the aim of adapting to business opportunities. In Germany the public-sector collaboration between the city of Hamburg and neighbouring states to participate in the construction of the new container port in Wilhenhaven agreed in June 2001 suffered a delay when the port of Hamburg decided to expand its own container facilities, including dredging of the Elbe River.

A major issue in port organization is regulation of companies, including the degree of foreign participation in joint ventures. In 2001 the Expenditure Commission set up by the Government of India suggested the establishment of a new body to supervise and regulate conservancy activities in major and minor ports of the country, including the functions that are now the responsibility of the Tariff Authority for Major Ports. The commission also suggested establishing commercial port companies, with current port trusts retaining only ownership of land and waterfront. Early in 2002, China's State Council announced the lifting of the ceiling of 49 per cent for foreign control and ownership of terminals in mainland ports.

Preliminary results of a survey conducted by UNCTAD in 50 African ports during the second half of 2001 to map the status of public- and private-sector partnerships in the region indicated that the private sector is involved in 76 per cent of cases. The main reason for private-sector involvement is the need to improve performance and quality of service (cited in 45 per cent of cases), while upgrading and enlarging infrastructure and attracting private investment come second at 17 per cent each. Concessions seem to be the preferred modality for involving the private sector, with fees linked to throughput in half of the cases and charged in local currency in two-thirds of the cases. The impact of privatization on employment seems to be mixed, with one-third of respondents citing a decrease in job opportunities, another third reporting no change and the remaining third actually confirming an increase in employment.

In ports of the European Union, diverse national legislation and practices have created uncertainty for providers of port services (e.g. cargo handling, marine services) and about the duties and responsibilities of the port authorities. In February 2001, a draft proposal for a Directive on Market Access to Port Services was presented by the European Commission to establish a Community legal framework and to lay down basic rules to remove restrictions hampering access for port services operators; improve the quality of service provided to port users; and contribute to reducing costs and promoting efficiency, flexibility, short-sea shipping and combined transport. Discussion went on during the year in the European Parliament and its relevant Committees and focused on points such as the number of authorized operators per category of cargo or service, the procedure for awarding authorizations and which technical requirements and restrictions to apply for security and environmental reasons. An amended proposal was ready after one year and received further comments from the European Sea Port Organization and the Federation of Ports in March 2002. The points raised included, among others, the need to exclude those ports handling only domestic traffic, the minimum requirement of two service providers per cargo category and the duration of the authorizations.

The difficulty of implementing new laws was evident in connection with the port of Santos (Brazil) when the decision to involve State and local authorities in the board of the authority was postponed until the next general election late in 2002.

## D. SECURITY MEASURES IN PORTS

The terrorist attack on United States territory on 11 September 2001 prompted a review of security procedures applied in ports of the country. The subsequent discovery in a Southern European port of an illegal immigrant traveling to North America with confidential information related to likely United States targets heightened awareness of the risks involved. The discovery was made when the specially fitted container in which the illegal immigrant was living raised suspicions because of the undue noises it produced when stored in a container yard. In December 2001 the Port and Maritime Act of 2001 was enacted by the United States Congress. The Act provides for establishing a National Maritime Advisory Committee; conducting initial security evaluations and port vulnerability assessments; establishing local port security committees; preparing maritime security plans; and conducting employment investigations and restrictions for security-sensitive positions. It also gives authority to address security risks arising from foreign ports.

Recently, the Transportation and Infrastructure Committee of the United States House of Representatives approved the Antiterrorism Act 2002 (HR3983), which complements the Port and Security Act 2001. HR3983 provides for conducting security assessments in foreign ports and refusal of entry into United States ports for vessels transiting in ports with unsatisfactory security procedures.

The international framework for improved port security was discussed in several meetings of the International Maritime Organization (IMO) during the last quarter of

2001 and early 2002. The 22nd IMO Assembly, held in London in November 2001, agreed to hold a Conference on Maritime Security in December 2002, decided to step up technical cooperation to help developing countries address maritime security issues and focused on amendments to existing Convention such as SOLAS (the International Convention for the Safety of Life at Sea).

The proposal made by the United States Government was considered in a number of meetings held during 2002: the 29th Facilitation Committee and Ship-Port Interface Working Group from 7 to 11 January, the Inter-Sessional Working Group on Maritime Security from 11 to 15 February, the Legal Committee meeting from 22 to 26 April and the 75th Maritime Safety Committee meeting from 15 to 24 May. Discussion focused on the measures to be applied to shipping within the framework of the Conventions of SOLAS, Standards of Training Certification and Watchkeeping for Seafarers (STCW) and Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA treaties).

Measures of interest to ports focused on making the International Maritime Dangerous Goods Code mandatory, and on provisions to implement security plans and vulnerability assessments and install port security officers in ports. Of particular interest were the low rate of container inspection in United States ports, estimated at only 2 per cent, and the proposal for raising this percentage and conducting comprehensive inspections of containers under the Container Security Initiative. The latter has four core elements: identifying high-risk boxes, prescreening boxes before they land at United States ports, using adequate technology to prescreen high-risk boxes, and using smart and secure boxes. A pilot partnership with selected importers of goods to the United States mainland has been set up to devise and implement adequate security procedures. The aim is to inspect up to 50 per cent of containers before they reach the mainland. Ten selected foreign ports have been chosen to conduct container inspection. They are Shanghai, Hong Kong and Yantian (all in China); Kaoshiung (Taiwan Province of China); Singapore; Rotterdam (the Netherlands); Busan (Republic of Korea); Bremerhaven (Germany); Tokyo (Japan); and Genoa (Italy). However, pilot security procedures are being implemented in other ports (e.g. Antwerp, Belgium) on the basis of bilateral agreements.