



## **DETAILS AND PRINCIPLES REGARDING PROPOSED REVISED SERVICE CHARGES**

**MAY 15, 2003**

### **GENERAL**

This document ("Details and Principles") provides additional details to expand upon the *Notice of Revised Service Charges* issued on May 15, 2003 (the "Notice"). Under Section 36 of the *Civil Air Navigation Services Commercialization Act*, S.C. 1996, c. 20 (the "ANS Act"), NAV CANADA is required to produce a document containing more details in relation to the proposed revised charges set forth in the Notice, including a justification in relation to the charging principles set out in Section 35 of the ANS Act.

Except for the revisions proposed in the Notice, all the existing charges and related terms and conditions, as set out in earlier Announcements pertaining to charges, remain in effect.

This document sets out the following: (1) a general overview of NAV CANADA, (2) traffic outlook, (3) amounts to recover, (4) rate analysis, (5) a justification of the proposal in relation to the charging principles, and (6) information regarding the Notice and on making representations to NAV CANADA.

**Persons interested in making representations in writing to NAV CANADA with regard to the Notice may do so by forwarding their submissions to the address set out in the Notice. Submissions must be received by NAV CANADA not later than July 14, 2003.**

## **1. GENERAL OVERVIEW OF NAV CANADA**

NAV CANADA is a non-share capital, private corporation which is responsible for the provision of civil air navigation facilities and services for aircraft in Canadian airspace or any other airspace for which Canada is responsible for providing air navigation services.

The system of governance at NAV CANADA is the result of a unique corporate structure intended to make the company a self-sustaining commercial enterprise that is accountable to its stakeholders. The Corporation is governed by a 15-member Board of Directors consisting of 10 directors nominated by stakeholders representing aviation users, bargaining agents and the federal government, 4 independent directors and the President & CEO. NAV CANADA also has an Advisory Committee elected by associate members, empowered to analyze and make reports and recommendations to the Board of Directors on any matter affecting the air navigation system.

The fundamental elements governing the mandate conferred on NAV CANADA by the ANS Act include the exclusive right to provide certain air navigation services, the ability to set and collect charges for air navigation services provided or made available by NAV CANADA or a person acting under the authority of the Minister of National Defence, and the obligation of the Corporation to provide these services.

The financial statements, issued quarterly and annually, provide extensive information on the revenues and expenses of NAV CANADA.

## **2. TRAFFIC OUTLOOK**

Traffic trends are unclear in the short term as the aviation industry, still adjusting to the fallout of the events of September 11<sup>th</sup>, 2001, is facing additional difficulties due to the impact of the war in Iraq and the outbreak of SARS (Severe Acute Respiratory Syndrome). In developing the outlook, consideration was given to results to-date, airline schedules (as reported in the Official Airline Guide) and information and analyses from the aviation industry and government institutions. Additionally, NAV CANADA has prepared the outlook presented below based on reasonable assumptions about general economic conditions. The outlook contains uncertainty, particularly related to the impact of the outbreak of SARS, the rate of recovery from the war in Iraq, the restructuring of Air Canada and the global issues facing the aviation industry. However, the quick end to the war and the containment of the SARS outbreak in Canada have removed some of the uncertainty.

The following assumptions were made for the level of charging units in fiscal year 2003/04:

- Terminal (air navigation services) charging units are forecast to be 2.0 per cent below the fiscal year 2000/01 level, producing 26,496,394 charging units.
- Overflight enroute charging units will be 0.7 per cent below the fiscal year 2000/01 level for the year as a whole. This will produce 10,298,593,732 charging units. Enroute (other than overflights) charging units will be 2.2 per cent below the fiscal year 2000/01 level, resulting in 4,889,468,596 charging units. Total enroute charging units are forecast to be 15,188,062,328.
- The North Atlantic traffic is forecast to be 2.5 per cent below the fiscal year 2000/01 level, producing 311,581 flights with respect to the North Atlantic (NAT) charge, and 330,755 flights for the International Communications (Int'l Com) charge.

The following table shows the traffic outlook for movement-based charging units as compared to fiscal year 2000/01, i.e., to the pre-September 11<sup>th</sup> level. It is noted that the reductions indicated for fiscal year 2001/02 are actual results for the year and the reductions for fiscal year 2002/03 reflect actual results to March 2003 and an estimate for the remainder of the fiscal year.

**Fiscal Years 2001/02 to 2003/04 Charging Unit Outlook**  
**Expressed as % Change from Fiscal Year 2000/01 Level**

	<u>FY 01/02</u>	<u>FY 02/03</u>	<u>FY 03/04</u>
Terminal	-10.4%	-11.2%	-2.0%
Overflight	-10.6%	-8.9%	-0.7%
Enroute	-9.7%	-10.6%	-2.2%
NAT	-12.5%	-12.4%	-2.5%
Int'l Com	-12.7%	-12.4%	-2.5%
<b>Weighted</b>	<b>-10.5%</b>	<b>-10.3%</b>	<b>-1.6%</b>

Overall, traffic for fiscal year 2003/04, as measured in charging units, is forecasted to be 1.6 per cent below the pre-September 11<sup>th</sup>, 2001, level. On a year-over-year basis, the outlook for fiscal year 2002/03 represents a 0.2 per cent increase over 2001/02, and fiscal year 2003/04 represents a 9.7 per cent increase over 2002/03.

### **3. AMOUNTS TO RECOVER**

The amounts that NAV CANADA will recover under the fee proposal fall into two categories:

- Costs for fiscal year 2003/04.
- Accumulated past shortfall at August 31, 2003, and Rate Stabilization Account (RSA) replenishment, both within five years.

NAV CANADA is pursuing a cross-border lease of certain Qualified Technological Equipment (QTE) which is anticipated to generate a one-time benefit in the order of \$200 million. This benefit will be used to reduce the amounts that would otherwise have to be recovered from ANS customers. It was decided to first apply this benefit to the anticipated past shortfall at August 31, 2003, less provisions for bad debt. The balance of the benefit is applied against the fiscal year 2003/04 costs.

#### **3.1 Costs for Fiscal Year 2003/04**

NAV CANADA's projected costs for fiscal year 2003/04 are \$1,073 million. These costs will be recovered during fiscal year 2003/04 by making the appropriate revision to rates, after taking into account:

- \$74 million from the QTE benefit. As explained in Section 3.2, \$126 million of the QTE benefit will be applied against the accumulated shortfall at August 31, 2003, leaving a balance of \$74 million.
- \$18 million from non-aeronautical revenues.

This leaves an amount of \$981 million to recover from breakeven rates for ANS charges.

The amount to be recovered by each service is determined by the allocation of costs to services, i.e., to Terminal, Enroute, NAT and Int'l Com services. The cost allocation methodology was developed in 1997 and a cost compilation report is produced following each fiscal year. The Company's auditors, KPMG, have expressed an opinion that the allocation methodology adopted by NAV CANADA is reasonable and appropriate for use as a basis for establishing the costs of these services. KPMG also reviews the annual cost compilation reports to ensure that they are in accordance with the cost allocation methodology.

The fiscal year 2001/02 actual cost allocation percentages are used as the principal basis for estimating the allocation of costs to services for fiscal year 2003/04. This allocation is provided in the following table which shows the amounts to be recovered for each service through ANS charges.

**Fiscal Year 2003/04 Costs  
to Recover from ANS Charges**

	Terminal	Enroute	NAT	Int' l Com	Total
Costs by Service	\$ 417.4M	\$ 522.2M	\$ 28.4M	\$ 13.0M	\$ 981M

**3.2 Recovery of Accumulated Past Shortfall at August 31, 2003, and Rate Stabilization Account (RSA) Replenishment**

At August 31, 2003, the accumulated shortfall is expected to be \$176 million at existing rates. The Company has decided to apply \$126 million of the QTE benefit against this shortfall. This amount will offset the shortfall, except for provision for bad debts, but taking into account the revenue in fiscal year 2002/03 (\$5 million) from the implementation of the proposed increase in charges, effective August 1, 2003. This results in a balance of \$45 million to recover from customers over five years. In addition, the target balance of \$50 million for the RSA will be replenished, leaving a total of \$95 million to be recovered within five years. The following table shows these calculations. As noted in Section 3.1, the remaining balance of \$74 million from the QTE benefit will be used to reduce the amount of fiscal year 2003/04 costs that must be recovered from ANS customers.

**Calculation of Amount of Accumulated Shortfall/RSA Replenishment  
to Recover from ANS Customers**

	(\$ Millions)
Anticipated Accumulated Shortfall at August 31, 2003	\$ 176
Less: Revenue for August 2003 from August 1, 2003 Increase in Charges	\$ 5
Less: QTE Benefit Used	\$ 126
Remaining Shortfall	\$ 45
Add: RSA Replenishment Requirement	\$ 50
Total to Recover from ANS Customers within five years	\$ 95

NAV CANADA tracks the historical operating surpluses and shortfalls (i.e., RSA contributions and draws) by service. On the basis of this information, the amount to recover by service is presented in the following table.

**Shortfall/RSA Amounts by Service to Recover by Rate Adjustment**  
**Fiscal Year 2003/04**

	<b>Terminal</b>	<b>Enroute</b>	<b>NAT</b>	<b>Int' l Com</b>	<b>Total</b>
Total	\$ 39.5M	\$ 50.3M	\$ 5.2M	\$ 0.0M	\$ 95M
Fiscal Year 2003/04 (one fifth of total)	\$ 7.9M	\$ 10.1M	\$ 1.0M	\$ 0.0M	\$ 19M

#### **4. RATE ANALYSIS**

Pursuant to the ANS Act, service charges are set at a level that, based on reasonable and prudent projections, will generate sufficient revenues to meet the Corporation's current and future financial requirements, i.e., to recover all costs (including debt servicing requirements and the repayment of principal), as determined in accordance with generally accepted accounting principles, and to maintain a contingency reserve for unforeseen events. In determining the rates, revenues from non-aeronautical sources must be taken into account.

As indicated in Section 3, the Company will set charges to recover the following amounts:

- Fiscal year 2003/04 costs of \$981 million (total costs of \$1073 million less \$92 million from non-aeronautical revenues and the QTE benefit).
- \$19 million towards the accumulated shortfall at August 31, 2003, and RSA replenishment requirement.

Breakeven rates for enroute, terminal and oceanic air navigation services that would recover \$981 million were developed. Additional rate adjustments were also developed to recover \$19 million towards past shortfalls and RSA replenishment. Information on the calculation of these rates follows.

#### **4.1 Calculation of Fiscal Year 2003/04 Breakeven Rates**

Section 2 provided information on the traffic forecast and Section 3.1 presented the fiscal year 2003/04 costs to be recovered from ANS charges for each service.

While the applicable portion of the QTE benefit and revenues from non-aeronautical sources were already included in calculating the costs to recover from ANS charges in Section 3.1, revenues from flat fees (Daily, Annual, and Quarterly charges) must also be taken into account when calculating unit rates for the movement-based

charges. Revenues from flat fees are split 85 per cent for terminal services and 15 per cent for enroute services. The following table shows the calculation of the breakeven rates set out in the Notice. Note that costs, revenues and charging units have been rounded for presentation purposes.

**Calculation of Fiscal Year 2003/04 Breakeven Rates**

	Terminal	Enroute	NAT	Int' l Com Voice	Int' l Com Data Link
Costs to Recover (\$ Millions)	\$ 417.4	\$ 522.2	\$ 28.4	\$ 9.7	\$ 3.3
Less: Revenues from Flat Fees (after proportionate rate adjustment)	\$ 29.1	\$ 5.1	\$ -	\$ -	\$ -
Costs to Recover from Movement- Based Charges	\$ 388.3	\$ 517.1	\$ 28.4	\$ 9.7	\$ 3.3
Charging Units (Thousands)	26,496	15,188,062	312	198	132
<b>Unit Rate</b>	<b>\$ 14.65</b>	<b>\$ 0.03406</b>	<b>\$ 91.00</b>	<b>\$ 49.18</b>	<b>\$ 24.85</b>
<b>Per Cent Increase from Current Rates</b>	<b>6.3%</b>	<b>3.2%</b>	<b>14.1%</b>	<b>3.1%</b>	<b>3.0%</b>

Rate changes for flat fees are made such that the percentage change is a weighted average of the changes made to the terminal and enroute rates. The weighting is 85 per cent terminal and 15 per cent enroute. The following table illustrates this calculation

**Calculation of Flat Fee Rate Increase  
To Reach Breakeven for Fiscal Year 2003/04**

	Rate Change	Flat Fee Weighting	Total
Terminal	6.3%	85.0%	5.4%
Enroute	3.2%	15.0%	0.5%
<b>Total Flat Fee Rate Increase (Per Cent Increase from Current Rates)</b>			<b>5.9%</b>

All flat fee rates will be increased by 5.9 per cent (rounded to the nearest dollar), which is reflected in the specific rates set out in the Notice.

#### **4.2 Calculation of Additional Rate Adjustments for Recovery of Shortfall and Replenishment of the Rate Stabilization Account (RSA)**

Section 3.2 presented the amounts to be recovered for each service from ANS charges in fiscal year 2003/04 as a contribution towards the recovery of the total accumulated shortfall at August 31, 2003, and the RSA replenishment requirement.

Similar to the methodology used in calculating breakeven rates, flat fee revenues must also be taken into account when calculating the rate adjustment. The following table shows the calculation of the additional rate adjustments set out in the Notice. Note that amounts to recover, revenues and charging units have been rounded for presentation purposes.

#### **Calculation of Fiscal Year 2003/04 Additional Rate Adjustments to Recover Shortfall/RSA Amounts**

	Terminal	Enroute	NAT	Int' l Com Voice	Int' l Com Data Link
Amounts to Recover (\$ Millions)	\$ 7.9	\$ 10.1	\$ 1.0	\$ -	\$ -
Less: Revenues from Flat Fees (from proportionate rate adjustment)	\$ 0.5	\$ 0.1	\$ -	\$ -	\$ -
Amounts to Recover from Movement- Based Charges	\$ 7.4	\$ 10.0	\$ 1.0	\$ -	\$ -
Charging Units (Thousands)	26,496	15,188,062	312	198	132
<b>Unit Rate</b>	<b>\$ 0.28</b>	<b>\$ 0.00065</b>	<b>\$ 3.35</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Per Cent Increase from Current Rates</b>	<b>2.0%</b>	<b>2.0%</b>	<b>4.2%</b>	<b>0.0%</b>	<b>0.0%</b>

The additional rate adjustment for flat fees will be 2.0%, the same as for the terminal and enroute charges. This increase (rounded to the nearest dollar) is reflected in the additional rate adjustments set out in the Notice.

#### **5. PRINCIPLES GOVERNING NAV CANADA'S SERVICE CHARGES**

The principles governing the establishment of new charges or the revision of existing charges by NAV CANADA are set out in Section 35 of the ANS Act. Each of the principles is presented below in italics, followed by an explanation of how the Notice complies with that particular principle.

- 35 (1) (a) *Charges must be in accordance with a methodology established and published by the Corporation that is explicit and that also includes the terms and conditions affecting charges;*

The Notice, required under Section 36 of the ANS Act, has been placed on the Internet and sent to aviation associations. On the basis of this information, any person subject to NAV CANADA's charges can calculate the amount that would be payable for a given flight.

- 35 (1) (b) *Charges must not be structured in such a way that a user would be encouraged to engage in practices that diminish safety for the purpose of avoiding a charge;*

For any given flight, NAV CANADA's charges are not structured in such a manner that safety may be affected. For example, any flight involving a jet aircraft of a given weight between two points (e.g., Ottawa and Québec City) is subject to the same Terminal Services Charge and Enroute Charge, regardless of whether the flight is IFR or VFR.

- 35 (1) (c) *Charges for the same services must not differentiate between domestic and international flights of air carriers;*

There is no differentiation in the proposed revised charges between domestic and international flights of air carriers.

- 35 (1) (d) *Charges for the same services must not differentiate among Canadian air carriers or among foreign air carriers;*

There is no differentiation in the proposed revised charges for a flight based on which domestic or foreign carrier provides the flight.

- 35 (1) (e) *Charges must differentiate between the provision of services in relation to the landing and take-off of aircraft and the provision of services in relation to aircraft in flight, and must reflect a reasonable allocation of the costs of providing the services in those circumstances;*

The charges are based on an allocation of costs among the enroute, terminal and oceanic services. The rules for the attribution of costs to the services were arrived at by considering work loads, statistics based on activity reports, management judgment and ICAO guidelines.

The Company's auditors, KPMG, have provided an opinion that the allocation methodology adopted by NAV CANADA reasonably reflects the way in which services are provided, is consistent with approaches used by other air navigation service providers, and is appropriate for use as a basis for establishing the costs of these services. A copy of this opinion is available upon request from NAV CANADA.

- 35 (1) (f) *Charges in respect of recreational and private aircraft must not be unreasonable or undue;*

The charges reflect the need for recreational and private aircraft to contribute, along with other users, to the costs of operating the Canadian civil air navigation system. NAV CANADA believes the charges are neither unreasonable nor undue.

- 35 (1) (g) *Charges for designated northern or remote services and for services directed to be provided under subsection 24(1) must not be higher than charges for similar services utilized to a similar extent elsewhere in Canada;*

Since NAV CANADA's charges are uniform throughout Canada, northern or remote services are subject to the same charges as services utilized elsewhere in Canada.

- 35 (1) (h) *Charges must be consistent with the international obligations of the Government of Canada; and*

The most relevant international obligations are the Convention on International Civil Aviation of 1944 (the "Chicago Convention") and bilateral air services agreements between Canada and other states.

Article 15 of the Chicago Convention deals with charges for air navigation facilities, and establishes the principle that fees charged for the use of airport and air navigation services not be higher for foreign compared to domestic users engaged in similar international air services. The charges comply with Article 15 because: (i) the charges in respect of international air services are not higher for foreign air carriers than they are for Canadian carriers engaged in

similar international air services (i.e., the charges do not differentiate according to the flag of the carrier), and (ii) the charges relate to the availability or provision of air navigation services and are not imposed for the right of entry into Canadian airspace.

The charges are also consistent with bilateral air services agreements between Canada and other states.

- 35 (1) (i) *Charges must not be set at a level that, based on reasonable and prudent projections, would generate revenues exceeding the Corporation's current and future financial requirements in relation to the provision of civil air navigation services.*

NAV CANADA's charges are set to recover the Corporation's costs, including expenses determined according to Generally Accepted Accounting Principles (GAAP) and the costs of complying with certain financial requirements, as described in detail in Subsection 35(5) of the ANS Act.

- 35 (2) *The charging methodology may recognize that the value of the services differs among users.*

NAV CANADA's charging methodology does recognize that the value of the services differs among users, e.g., charges that vary with aircraft weight.

- 35 (3) *Where the Corporation's charging methodology recognizes the value of the services and aircraft weight is used as a measure of the value of the services, the principle referred to in paragraph (1)(a) is deemed not to have been observed if aircraft weight is taken into account either directly proportionally or greater than directly proportionally.*

The International Communication Services Charges and the North Atlantic Enroute Facilities and Services Charge are levied on a per flight basis and do not take weight into account.

The Enroute and Terminal Services charges take weight into account, but less than proportionally. The Enroute Charge is based on a unit rate multiplied by the square root of aircraft weight multiplied by the distance in Canadian airspace. The Terminal Services Charge is based on a unit rate multiplied by aircraft weight raised to the 0.9 power. The Airport Surface Detection Equipment Charge is based on the same formula as that for the Terminal Services Charge (but with a different unit rate).

Pursuant to Subsection 35(7), Subsection 35(3) does not apply to flat fees. The Annual, Quarterly and Daily Charges represent flat fees.

- 35 (4) *For the purpose of subsection (3), "weight", in relation to an aircraft, means the maximum permissible take-off weight specified in the aircraft's certificate of airworthiness or in a document referred to in that certificate.*

Weight calculations are based on the maximum permissible take-off weight specified in the aircraft's certificate of airworthiness or in a document referred to in that certificate. For more information, please refer to the January 2003 *Customer Guide to Charges*.

## **6. INFORMATION REGARDING THE NOTICE AND ON MAKING REPRESENTATIONS TO NAV CANADA**

The Notice and this document are available on-line and a copy may be downloaded from NAV CANADA's Internet site ([www.navcanada.ca](http://www.navcanada.ca)).

Information on the existing charges is provided in NAV CANADA's announcements on service charges and *Customer Guide to Charges*, which are also posted on the Internet site.

Additional copies of the Details and Principles document may be obtained by contacting NAV CANADA:

in writing:                   NAV CANADA  
                                  P.O. Box 3411, Station "D"  
                                  Ottawa, Ontario  
                                  CANADA K1P 5L6  
                                  Attention: Director, Customer Relations

by e-mail:                   service@navcanada.ca  
by facsimile:               1 - 613 - 563 - 3426  
by telephone:               1 - 800 - 876 - 46934 (within North America, disregard the last digit)

Pursuant to Section 36 of the ANS Act, persons interested in making representations in writing to NAV CANADA with regard to the Notice may do so in writing to the following address:

NAV CANADA  
P.O. Box 3411, Station "D"  
Ottawa, Ontario  
CANADA K1P 5L6  
Attention: Director, Rates and Revenues

By facsimile: 1 - 613 - 563 - 7994

**Note: Representations must be received by NAV CANADA not later than the close of business on July 14, 2003.**

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***Caution Concerning Forward-looking information***

*Certain statements made in this document are of a forward-looking nature and are subject to risks and uncertainties. The results indicated in these statements may differ materially from actual results. The forward-looking information contained in this document represents NAV CANADA's expectations as of May 13, 2003, and are subject to change after such date. However, NAV CANADA disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.*