



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

**JUNE 2008**

### **GENERAL**

This document ("Details and Principles") provides additional details to expand upon the *Notice of Revised Service Charges* dated June 2008 (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) Forecast Costs for Fiscal 2009, (4) Rate Analysis, (5) Calculation of Revised Unit Rate for Terminal Charge, (6) Calculation of Revised Daily Charge, (7) Principles Governing NAV CANADA's Service Charges, and (8) 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 August 18, 2008.**

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

NAV CANADA is a non-share capital, private sector 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 and Management's Discussion and Analysis (MD&A), issued quarterly and annually, and the Annual Information Form provide extensive information on the revenues and expenses of NAV CANADA. These documents are available electronically at [www.navcanada.ca](http://www.navcanada.ca).

## **2. TRAFFIC OUTLOOK**

In developing the traffic outlook, consideration was given to results to-date and airline schedules (as reported in the Official Airline Guide) for fiscal 2008, and available passenger and/or aircraft movement forecasts, such as from IATA and Transport Canada for fiscal 2009. A number of other factors were also considered, including economic trends, aircraft fleet changes and weather patterns. With respect to an economic slowdown, it was assumed that a slowdown would affect the growth in air travel during the 12 month period from September 2008 to August 2009, i.e., for the full FY 2009.

The following table shows the traffic outlook for movement-based charging units expressed as a year-over-year percentage change. It is noted that the changes indicated for fiscal year 2008 reflect actual results to April 2008 and an estimate for the remainder of the fiscal year.

**FISCAL YEARS 2008 AND 2009 CHARGING UNIT OUTLOOK**  
**EXPRESSED AS YEAR-OVER-YEAR % CHANGE**

|                 | <u>FY 2008</u> | <u>FY 2009</u> |
|-----------------|----------------|----------------|
| Overflight      | 6.6%           | 2.5%           |
| Terminal        | 5.5%           | 2.1%           |
| Enroute         | 7.3%           | 2.8%           |
| NAT             | 6.2%           | 2.7%           |
| Int'l Com       | 4.1%           | 2.7%           |
| <b>Weighted</b> | <b>6.3%</b>    | <b>2.4%</b>    |

Overall, year-to-year traffic growth of 6.3% and 2.4% is forecast for fiscal years 2008 and 2009, respectively.

### 3. FORECAST COSTS FOR FISCAL YEAR 2009

NAV CANADA's projected costs for fiscal year 2009 are \$ 1,253 million. A breakdown of the costs is provided in the following table:

**NAV CANADA PROJECTED COSTS**  
**FISCAL YEAR 2009**  
**(\$ MILLIONS)**

|                                    |                     |
|------------------------------------|---------------------|
| Operating Costs:                   |                     |
| Salaries, benefits, and allowances | 778                 |
| Other operating                    | 231                 |
|                                    | <u>1,009</u>        |
| Other Costs and Income:            |                     |
| Interest expense                   | 119                 |
| Depreciation and amortization      | 137                 |
| Other income                       | (12)                |
|                                    | <u>244</u>          |
| Total Costs                        | <u><u>1,253</u></u> |

### 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), 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.

The total costs of the Company for fiscal year 2009 are projected at \$1,253 million. As shown in the table below, the forecast revenue from the proposed rates (\$1,227 million) and from the non-aeronautical sources such as technology sales (\$32 million) totals \$1,259 million.

**FORECAST COST, REVENUE, AND SURPLUS**  
**FOR FISCAL 2009**  
**(\$ MILLIONS)**

|  |       |       |
|--|-------|-------|
| COST   |       | 1,253 |
| REVENUE  |       |       |
| Overflight   | 435   |       |
| Terminal*  | 469   |       |
| Enroute  | 223   |       |
| North Atlantic and Int'l Com   | 54    |       |
| Daily* and Annual Charges  | 46    |       |
| Total Revenue from Proposed Rates  | 1,227 |       |
| Revenue from Non-aeronautical Sources  | 32    |       |
| TOTAL REVENUE  |       | 1,259 |
| SURPLUS  |       | 6     |
| * These revenues reflect the revisions to the Terminal Charge and the Daily Charge set out in subsections 1.3 and 1.4 of the Notice. |       |       |

As indicated in the Notice, due to the significant uncertainties regarding both the traffic and cost projections, no further reduction in rates is proposed at this time although the Company will revisit this on an ongoing basis and will adjust rates as more information becomes available and/or experience with traffic results and costs dictates. A review of cost allocation between services was conducted as of August 31, 2007, and was found to be appropriate.

## **5. CALCULATION OF REVISED UNIT RATE FOR TERMINAL CHARGE**

As identified in the Notice, NAV CANADA announced in April 2006 that it would change the aircraft weight factor in the formula for the Terminal Charge, from the exponent of 0.9 to 0.85, effective March 1, 2006 (Phase 1), and to 0.80, effective September 1, 2008 (Phase 2).

The Notice provides the revised Terminal Charge base rate of \$23.90 for Phase 2. This rate also incorporates the existing temporary rate reduction directly into the base rate, as proposed in the Notice.

The Terminal Charge and flat charges (Daily, Quarterly and Annual) contribute to the recovery of terminal air navigation services costs. The flat charges are composite fees, currently representing 83% terminal and 17% enroute. Revisions are proposed in the Terminal Charge and the Daily Charge.

The proposed Terminal Charge and the terminal component of the Daily Charge are designed to generate the same total revenue for terminal air navigation services as the existing charges.

The forecast revenue for terminal air navigation services from existing charges for fiscal year 2009 was used in calculating the revised rates. This forecast is based on an anticipated year-over-year growth rate in traffic of 5.5% and 2.1% for fiscal years 2008 and 2009, respectively. For flights subject to the Daily Charge, an increase of 3.8% was assumed for fiscal 2008, and a decrease of 2.7% was assumed for fiscal 2009.

Total revenue forecast for terminal air navigation services is approximately \$508 million for fiscal 2009. The calculation of the revenue at the existing weight exponent of 0.85 is provided in the following table. The revenues shown reflect the net of the existing base rates and temporary rate reductions.

| <b>FORECAST REVENUE FOR TERMINAL SERVICES<br/>AT EXISTING NET RATES (BASE RATES LESS TEMORARY RATE REDUCTION)<br/>FISCAL YEAR 2009<br/>(\$ MILLIONS)</b> |                 |
|--|-----------------|
| Revenue from Terminal Charge   | \$ 471.8        |
| Terminal Component of Revenue from Flat Fees   | \$ 36.0         |
| <b>Total Terminal Revenue from Base Rates</b>  | <b>\$ 507.8</b> |

In calculating the revised charging units, these were derived by first applying the new formula to the actual traffic for fiscal year 2007, then forecasting to fiscal year 2009 by applying the 5.5% anticipated growth rate for 2008 and the 2.1% anticipated growth rate for 2009.

In deriving the unit rates for the Terminal Charge, it was also necessary to take into account revisions in the Daily Charge. The calculation reflects that the percentage change in the Terminal Charge and the terminal portion of the Daily Charge would be approximately the same for aircraft of similar weight (MTOW).

The calculation of the unit rate for the Terminal Charge is presented in the following table.

| <b>CALCULATION OF UNIT RATE FOR TERMINAL CHARGE<br/>(INCLUDING THE INCORPORATION OF THE EXISTING<br/>TEMPORARY RATE REDUCTION INTO THE BASE RATE )<br/>EFFECTIVE SEPTEMBER 1, 2008</b> |                 |
|--|-----------------|
| <b>Unit Rate</b>   |                 |
| Total Terminal Revenue Budgeted FY 2009  | \$ 507,786,432  |
| Less: Terminal Component of adjusted Flat Fees   | \$ 39,142,251   |
| Terminal Revenue to Recover from Movement-based Charge   | \$ 468,644,181  |
| FY 2009 Budgeted Charging Units (Calculated at Exponent 0.8)   | 19,608,724      |
| <b>Unit Rate, Terminal Charge with Exponent 0.8</b>  | <b>\$ 23.90</b> |

## 6. CALCULATION OF REVISED DAILY CHARGE

The change in the formula for the Terminal Charge results in an increase in the charge for smaller aircraft (and a corresponding decrease for larger aircraft). The terminal component of the Daily Charge will be increased by the same percentage as the Terminal Charge for aircraft of similar weight.

The calculation of the revised Daily Charge is presented in the following table.

**CALCULATION OF REVISED DAILY CHARGE  
EFFECTIVE SEPTEMBER 1, 2008**

| CATEGORY    | MTOW<br>(TONNES)  | EXISTING RATE*     |                                |                                 | TERMINAL<br>INCREMENT<br>REQUIRED | REVISED<br>TERMINAL<br>PORTION | REVISED<br>BASE<br>RATE | DAILY<br>RATE<br>CHANGE |               |                        |               |
|-------------|-------------------|--------------------|--------------------------------|---------------------------------|-----------------------------------|--------------------------------|-------------------------|-------------------------|---------------|------------------------|---------------|
|             |                   | TOTAL<br>100%<br>A | ENROUTE<br>PORTION<br>17%<br>B | TERMINAL<br>PORTION<br>83%<br>C |                                   |                                |                         |                         | E = C x (1+D) | F = E + B<br>(ROUNDED) | G = (F-A) / A |
|             |                   |                    |                                |                                 |                                   |                                |                         |                         |               |                        |               |
| Propellers  | Over 3.0 to 5.0   | \$ 37.00           | \$ 6.29                        | \$ 30.71                        | 14.7%                             | \$ 35.22                       | \$ 42                   | 13.5%                   |               |                        |               |
|             | Over 5.0 to 6.2   | \$ 76.00           | \$ 12.92                       | \$ 63.08                        | 12.9%                             | \$ 71.22                       | \$ 84                   | 10.5%                   |               |                        |               |
|             | Over 6.2 to 8.6   | \$ 304.00          | \$ 51.68                       | \$ 252.32                       | 11.3%                             | \$ 280.83                      | \$ 333                  | 9.5%                    |               |                        |               |
|             | Over 8.6 to 12.3  | \$ 721.00          | \$ 122.57                      | \$ 598.43                       | 8.7%                              | \$ 650.49                      | \$ 773                  | 7.2%                    |               |                        |               |
|             | Over 12.3 to 15.0 | \$ 1,079.00        | \$ 183.43                      | \$ 895.57                       | 8.2%                              | \$ 969.01                      | \$ 1,152                | 6.8%                    |               |                        |               |
|             | Over 15.0 to 18.0 | \$ 1,306.00        | \$ 222.02                      | \$ 1,083.98                     | 7.2%                              | \$ 1,162.03                    | \$ 1,384                | 6.0%                    |               |                        |               |
|             | Over 18.0 to 21.4 | \$ 1,773.00        | \$ 301.41                      | \$ 1,471.59                     | 6.3%                              | \$ 1,564.30                    | \$ 1,866                | 5.2%                    |               |                        |               |
| Over 21.4   | \$ 2,343.00       | \$ 398.31          | \$ 1,944.69                    | 4.0%                            | \$ 2,022.48                       | \$ 2,421                       | 3.3%                    |                         |               |                        |               |
| Helicopters |                   | \$ 76.00           | \$ 12.92                       | \$ 63.08                        | 12.9%                             | \$ 71.22                       | \$ 84                   | 10.5%                   |               |                        |               |
| Jets        | Up to 3.0         | \$ 140.00          | \$ 23.80                       | \$ 116.20                       | 16.7%                             | \$ 135.61                      | \$ 159                  | 13.6%                   |               |                        |               |
|             | Over 3.0 to 6.2   | \$ 185.00          | \$ 31.45                       | \$ 153.55                       | 12.8%                             | \$ 173.20                      | \$ 205                  | 10.8%                   |               |                        |               |
|             | Over 6.2 to 7.5   | \$ 304.00          | \$ 51.68                       | \$ 252.32                       | 11.3%                             | \$ 280.83                      | \$ 333                  | 9.5%                    |               |                        |               |

\* Net of temporary rate reduction.

## 7. 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 cost allocation methodology is set out in the report entitled "Methodology to be Used in Attributing the Costs of Air Navigation Services". The costs are allocated annually in the report entitled "Compilation of Air Navigation Services Costs". The Company's auditors, KPMG, annually prepare a specified auditing procedures report on the compilation of the ANS cost information. The KPMG report states that the cost information has been properly compiled by NAV CANADA, in all material respects, in accordance with the Company's cost allocation methodology. A copy of this report 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 distance. The Terminal Services Charge is based on a unit rate multiplied by aircraft weight raised to the 0.8 power.

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 August 1, 2007 *Customer Guide to Charges*.

## **8. 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:               1-800-876-4693

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: Assistant Vice-President,  
Revenue and Performance Indicators

By facsimile:               1-613-563-7994

**Note: Representations must be received by NAV CANADA not later than the close of business on August 18, 2008.**

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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 June 12, 2008, 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.*