NOTICE OF REVISED SERVICE CHARGES

JUNE 2019

GENERAL

Pursuant to Section 36 of the Civil Air Navigation Services Commercialization Act, S.C. 1996, c. 20 (the ANS Act), the following document provides notice (the Notice) of NAV CANADA’s proposed revised charges to become effective September 1, 2019, and January 1, 2020, except as otherwise noted. A document setting out additional details in relation to these proposals, including a justification in relation to the charging principles established under Section 35 of the ANS Act, is available upon request from NAV CANADA.

Persons interested in making representations to NAV CANADA with regard to the proposals set out in this Notice may do so by writing to the address set out under Section 4 so as to be received by NAV CANADA not later than August 6, 2019.

NAV CANADA applies service charges to the following categories of air navigation services: (i) terminal, (ii) enroute, (iii) north atlantic enroute, and (iv) international communications.

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

This Notice consists of four sections:

1. Proposed Revision to Service Charge Rates;

2. Proposed Changes to the Charging Formula for the NAT Charge;

3. Proposed Changes to the Rate Stabilization Account Balance Management Principle; and

4. Additional Information Regarding the Notice and on Making Representations to NAV CANADA.
1. PROPOSED REVISION TO SERVICE CHARGE RATES

1.1 Background

When establishing a new charge for air navigation services or revising an existing charge, the Corporation must follow the charging principles set out in the ANS Act. These principles prescribe that, among other things, 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. Pursuant to the charging principles, the Corporation’s Board of Directors (Board) approves the amount and timing of changes to customer service charges. The Board also approves the Corporation’s annual budget where the amounts to be recovered through customer service charges for the ensuing year are determined. The Corporation plans its operations to result in an annual financial breakeven position after recording adjustments to the rate stabilization account.

Traffic growth has been moderating from the expected traffic growth over the past year. The below-expected growth has been driven primarily through a shift in the domestic carrier operations away from the domestic markets to trans-border markets, negative wind effects, grounding of the 737 Max jets, and trade wars/tariffs affecting cargo traffic.

In fiscal 2019 the Company began operational use of space-based ADS-B surveillance technology in its air traffic control operations in certain domestic Enroute airspace and in the North Atlantic oceanic airspace. The new space-based surveillance technology significantly enhances safety and aircraft tracking over current non-surveilled airspace. In addition, the Company expects that ADS-B equipped aircraft will be able to obtain operational benefits. The introduction of service in March 2019 was made with no accompanying customer service charge for the trial period.

The implementation of service charges for space-based ADS-B surveillance in all domestic and oceanic airspace will be phased in over two implementation dates. Cost recovery of space-based ADS-B surveillance within Domestic Enroute airspace will commence on September 1, 2019 and will be recovered through the existing domestic airspace Enroute service charge (including overflights). Charges related to space-based ADS-B surveillance within the North Atlantic oceanic airspace will begin cost recovery January 1, 2020 and will be recovered through the existing North Atlantic Enroute (NAT) service charge. This two-phase approach reflects the expected dates the Company will incur costs from its third-party space-based ADS-B surveillance provider for services on a non-trial basis.

With the implementation of space-based ADS-B surveillance the Company is proposing to adjust its Enroute and NAT service charges to recover the applicable costs associated with the third-party space-based ADS-B surveillance service. Service charge increases for fiscal 2020, as proposed, will be limited to the recovery of space-based ADS-B surveillance only. Increased costs, or shortfalls in revenue associated to below-expected traffic growth will be addressed through the reduction of the Rate Stabilization Account balance.
The following subsections set out the rate proposals. Additional information including supporting calculations is provided in the document Details and Principles Regarding Proposed Revised Service Charges (June 2019). Refer to section 4 for information on how to obtain a copy of this document.

1.2 Proposed Customer Service Charge Rate Revisions Effective September 1, 2019

For base rates effective September 1, 2019, the Company proposes to adjust existing rates to recover the cost of domestic space-based surveillance data services and rebalance rates between services to reflect the most recent cost allocation and traffic forecast by service for fiscal 2020.

NAV CANADA’s costs and revenues relate to four services provided by the Company: Terminal, Enroute, North Atlantic Enroute (NAT), and International Communications (Int'l Com). The proposed base rate revisions for each of the services are as follows: Terminal: 0.0% change, Enroute: 2.0% increase, NAT: 8.9% decrease, and Int'l Com: 7.0% increase. Overall, the proposed base rate revisions represent an average 0.8% increase in base rates, which relates entirely to the recovery of domestic space-based surveillance data services. The revisions to rates for service charges are to be effective September 1, 2019, except for the Annual, Quarterly, and Daily – Major Airport charges, which will be effective on March 1, 2020, consistent with the revision cycle for these charges.

Note that additional service charges revisions are proposed for January 1, 2020, in subsection 1.3.

Movement-Based Charges

<table>
<thead>
<tr>
<th>Charge</th>
<th>Base Rates Prior to September 1, 2019</th>
<th>Proposed Base Rates Effective September 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>$24.36</td>
<td>$24.36</td>
</tr>
<tr>
<td>Enroute</td>
<td>$0.02949</td>
<td>$0.03008</td>
</tr>
<tr>
<td>North Atlantic</td>
<td>$83.00</td>
<td>$75.61</td>
</tr>
<tr>
<td>International Communications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Link</td>
<td>$18.68</td>
<td>$19.99</td>
</tr>
<tr>
<td>Voice</td>
<td>$49.66</td>
<td>$53.14</td>
</tr>
</tbody>
</table>
## Daily Charges

<table>
<thead>
<tr>
<th>Category and Weight Group* (in Metric tonnes)</th>
<th>Base Rates Prior to September 1, 2019</th>
<th>Proposed Base Rates Effective September 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propeller Aircraft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 3.0 to 5.0</td>
<td>$41.53</td>
<td>$41.65</td>
</tr>
<tr>
<td>Over 5.0 to 6.2</td>
<td>$83.07</td>
<td>$83.32</td>
</tr>
<tr>
<td>Over 6.2 to 8.6</td>
<td>$329.31</td>
<td>$330.30</td>
</tr>
<tr>
<td>Over 8.6 to 12.3</td>
<td>$764.44</td>
<td>$766.73</td>
</tr>
<tr>
<td>Over 12.3 to 15.0</td>
<td>$1,139.23</td>
<td>$1,142.65</td>
</tr>
<tr>
<td>Over 15.0 to 18.0</td>
<td>$1,368.66</td>
<td>$1,372.77</td>
</tr>
<tr>
<td>Over 18.0 to 21.4</td>
<td>$1,845.33</td>
<td>$1,850.87</td>
</tr>
<tr>
<td>Over 21.4</td>
<td>$2,394.18</td>
<td>$2,401.36</td>
</tr>
<tr>
<td>Maximum Helicopters</td>
<td>$83.07</td>
<td>$83.32</td>
</tr>
</tbody>
</table>

| Small Jet Aircraft                          |                                      |                                                  |
| Up to 3.0                                   | $157.25                              | $157.72                                          |
| Over 3.0 to 6.2                             | $202.73                              | $203.34                                          |
| Over 6.2 to 7.5                             | $329.31                              | $330.30                                          |

* Maximum permissible take-off weight.

## Annual Charges*

<table>
<thead>
<tr>
<th>Weight Group** (in Metric tonnes)</th>
<th>Base Rates Prior to March 1, 2020</th>
<th>Proposed Base Rates Effective March 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.617 up to 2.0</td>
<td>$67.20</td>
<td>$67.40</td>
</tr>
<tr>
<td>Over 2.0 up to 3.0***</td>
<td>$224.44</td>
<td>$225.12</td>
</tr>
</tbody>
</table>

* For foreign-registered aircraft, the corresponding Quarterly Charge is equal to 25% of the Annual Charge.
** Maximum permissible take-off weight.
*** The existing provisions regarding private aircraft used exclusively for recreational purposes (regardless of aircraft weight) and for aircraft restricted to aerial agricultural spraying remain with a revised rate of $67.40.
Daily Charge at Seven Specified International Airports

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Base Rates Prior to March 1, 2020</th>
<th>Proposed Base Rates Effective March 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Charge for Propeller Aircraft up to 3.0 Metric Tonnes*</td>
<td>$</td>
<td>9.89</td>
</tr>
</tbody>
</table>

* Maximum permissible take-off weight.

Annual Minimum Charges*

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Base Rates Prior to March 1, 2020</th>
<th>Proposed Base Rates Effective March 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Minimum for Propeller Aircraft over 3.0 Metric Tonnes and Jet Aircraft **</td>
<td>$224.44</td>
<td>$225.12</td>
</tr>
</tbody>
</table>

* Applicable to aircraft not subject to the Annual Charge or the Quarterly Charge. For foreign-registered aircraft, the corresponding Quarterly Minimum Charge is equal to 25% of the Annual Minimum Charge.

** Except for aircraft restricted to Agricultural Spraying, for which the existing provisions remain with a revised rate of $67.40.

1.3 Proposed Customer Service Charge Rate Revisions Effective January 1, 2020

It is proposed that the rate for the NAT charge will be increased to $155.03 per flight, effective January 1, 2020.

This would represent an 86.8% increase compared to existing rates and a 105.1% increase from the reduced revised rates as of September 1, 2019. The increase is to recover third-party satellite data services costs associated with the implementation of space-based ADS-B surveillance within the Gander FIR/CTA.

The overall increase in rates for fiscal 2020 would be 3.6% compared to existing rate levels.

2. Charging Formula for the NAT Charge to be Effective January 1, 2020

Presented below are the three NAT service charge formula options currently being considered by the Company, including the retention of the existing flat fee per flight formula (option 3). The Board of Directors will take into consideration the views of the Company’s stakeholders prior to making a decision, following the close of the consultation period, on whether it will proceed with one of the two new charging formula options for the NAT region, or whether it will retain the current charging formula. The decision will be
reflected in the Announcement of Revised Service Charges planned to be released after the close of the consultation period for this Notice, in August 2019.

The NAT charge applies to services provided in the Gander Oceanic Flight Information Region / Control Area (FIR/CTA). This area consists of airspace delegated to Canada by the International Civil Aviation Organization (ICAO), plus and minus international delegations between Canada and other countries as well as certain delegations between domestic and oceanic control areas managed by Canada.

The charging options proposed include aircraft weight and distance flown as possible components. The aircraft weight and the distance flown values used in the charge calculation will be determined consistent with current practice for the existing enroute charges in domestic airspace. Further information is provided in the document Details and Principles Regarding Proposed Revised Service Charges (June 2019).

Any change in charging formula adopted for NAT would be effective January 1, 2020.

Option 1: Weight and Distance

The Company is proposing as Option 1 a change in the NAT service charge from a per flight flat fee to a weight and distance calculation.

The NAT charge for a flight would be the unit rate multiplied by the number of charging units for that flight. The number of charging units for each flight will be the square root of the aircraft weight expressed in tonnes multiplied by the distance flown in the Gander Oceanic FIR/CTA expressed in kilometers, consistent with the enroute charging formula currently in place for domestic airspace.

The proposed charge would have a unit rate of $0.00713 per charging unit.

Option 2: Distance

The Company is proposing as Option 2 a change in the NAT service charge from a per flight flat fee to a distance-based service charge calculation.

The proposed charge would have a unit rate of $0.11007 per kilometer.

Option 3: Existing Flat Fee

In the event that the Company does not proceed with Option 1 or Option 2, the existing flat fee per flight will be retained.

The NAT charge would be $155.03 per flight, as proposed in subsection 1.3.
3. **Proposed Changes to the Rate Stabilization Account Balance Management Principle**

The Company currently has a Rate Stabilization Account (RSA) target balance set at 7.5% of annual operating expenses, excluding one-time non-recurring items. The Company proposes that it cease using the formula-based RSA target balance (7.5% of annual operating expenses) and instead manage the RSA level on an annual basis in conjunction with the rate setting and budget approval process. To determine an appropriate corporate contingency the RSA level, based on the forecasted year-end balance of the RSA, would be considered together with Management’s objective analysis as to the magnitude of the reduction in operating costs achievable in a liquidity event.

This change would become effective September 1, 2019.

4. **ADDITIONAL INFORMATION REGARDING THE NOTICE AND ON MAKING REPRESENTATIONS TO NAV CANADA**

Further details of this proposal, including a justification for the proposal in relation to the charging principles, are provided in a document entitled *Details and Principles Regarding Proposed Revised Service Charges* (Details and Principles) which is available on request. The Notice and the Details and Principles documents are posted on 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 available on the Internet site.

A hard copy of the Details and Principles document may be obtained by contacting NAV CANADA:

**In writing:**
NAV CANADA  
P.O. Box 3411, Station “T”  
Ottawa, Ontario  
Canada K1P 5L6  
Attention: AVP Stakeholder and Commercial Relations

**By e-mail:** service@navcanada.ca

**By facsimile:** 1-613-563-3426

**By telephone:** 1-613-563-5588  
1-800-876-4693 (Toll Free North America)
Pursuant to Section 36 of the ANS Act, persons interested in making representations to NAV CANADA with regard to the proposals contained in this Notice may do so in writing to the following address:

NAV CANADA  
P.O. Box 3411, Station “T”  
Ottawa, Ontario  
Canada   K1P 5L6  
Attention: Director, Rates and Revenue Systems

By facsimile: 1-613-563-5882

Note: Representations must be received by NAV CANADA not later than the close of business on August 6, 2019.

Caution Concerning Forward-looking Information

This document contains certain statements about NAV CANADA’s future expectations. These statements are generally identified by words like “anticipate”, “plan”, “believe”, “intend”, “expect”, “estimate”, “approximate” and the like, as well as future or conditional verbs such as “will”, “should”, “would” and “could”, or negative versions thereof. Because forward-looking statements involve future risks and uncertainties, actual results may be quite different from those expressed or implied in these statements. Examples include geopolitical unrest, terrorist attacks and the threat of terrorist attacks, war, epidemics or pandemics, natural disasters, weather patterns, environmental concerns, cyber security attacks, labour negotiations, arbitrations, workforce recruitment, training and retention, general aviation industry conditions and trends, air traffic levels, the use of telecommunications and ground transportation as alternatives to air travel, capital market and economic conditions, the ability to collect customer service charges and reduce operating costs, the success of our investment in space-based aircraft surveillance through Aireon, investment returns or losses, changes in interest rates, changes in laws, tax changes, adverse regulatory developments or proceedings and lawsuits. Some of these risks and uncertainties are explained under “Risk Factors” in our fiscal 2018 Annual Information Form. The forward-looking statements contained in this document represent our expectations as of June 4, 2019 and are subject to change after this date. Readers of this document are cautioned not to place undue reliance on any forward-looking statement. We disclaim any intention or obligation to update or revise any forward-looking statements included in this document whether as a result of new information, future events or for any other reason, except as required by applicable securities legislation.