

# AERONAUTICAL INFORMATION CIRCULAR 22/19

## NOTICE OF PLANNED EXPANSION OF SATELLITE VOICE COMMUNICATIONS SERVICES IN EDMONTON AND GANDER FLIGHT INFORMATION REGIONS

(Replaces AIC 22/18)

### Introduction

The Edmonton and Gander area control centres (ACCs) of NAV CANADA have introduced improvements to their voice communications using satellite voice communications (SATVOICE).

This capability will enable appropriately equipped aircraft operating in the Edmonton and Gander flight information regions (FIRs) to dial a single SATVOICE short code for a call to be automatically routed and connected to the air traffic controller responsible for the flight.

Although this service will enhance the suite of communications for controllers and flight crews and is considered a form of direct controller-pilot communications (DCPC), very high frequency (VHF) voice communication, high frequency (HF) communication, or controller-pilot data link communications (CPDLC) will remain the primary method of communications.

### Background

SATVOICE has been available and approved for routine air traffic service (ATS) communications in Canada for approximately 10 years, but technical limitations have restricted the effectiveness of the service provided. These limitations have related mostly to the ground infrastructure and the ability for an aircraft to contact the controller responsible for the flight. Ongoing development by NAV CANADA has evolved the ground system and technology to overcome the experienced limitations.

### Operator Eligibility and Participation

To take full advantage of the opportunities made available by SATVOICE communications, aircraft must be appropriately configured, and the operator subscribed to the appropriate service with either Inmarsat or Iridium.

Additionally, flight crews will need to ensure familiarity with SATVOICE operations within their respective avionics as there could be instances where the air traffic controllers will be using the service for intervention purposes. It is imperative that flight crews recognize an incoming call and react accordingly. Failure to respond to a call will require the air traffic controllers to attempt contact using other methods of communication.

### Use of SATVOICE

SATVOICE is not a replacement for automatic dependent surveillance – contract (ADS-C), CPDLC, VHF, or HF communications, but rather a means of reducing the risk of communications failure, improving the safety of operations, and alleviating HF congestion.

In the Edmonton FIR, SATVOICE calls should be made directly to the ZEG SATVOICE number.

In the Gander Domestic and Oceanic FIRs, SATVOICE calls should be made to Gander international flight service station (IFSS) except in urgent situations, when the call can be made directly to the appropriate air traffic control (ATC) unit.

Refer to the table below for the updated short and long codes for SATVOICE services provided by Edmonton and Gander FIRs.

### Service Limitations North of 72N in Edmonton FIR

Inmarsat satellite coverage has limitations in the north so flights operating only with Inmarsat equipment may experience unreliability north of 72N.

There is no Inmarsat satellite coverage north of 80N so flights will **not** be able to avail of SATVOICE services in this area using Inmarsat. Iridium SATVOICE services are available north of 80N.

Operators of aircraft that are equipped with both Inmarsat and Iridium modems should ensure that they switch to the Iridium system before operating north of 72N.

### Flight Planning

Operators should ensure the following is contained in the flight plan for aircraft capable of both Air-to-Ground and Ground-to-Air SATVOICE calling:

- in item 10, as appropriate insert:
  - “M1” for ATC RTF INMARSAT capability and/or
  - “M3” for ATC RTF IRIDIUM capability; and
- in Item 18, insert:
  - the indicator REG/ followed by the aircraft registration; and
  - the indicator CODE/ followed by the aircraft address expressed in the form of an alphanumeric code of six hexadecimal characters.

#### Example:

```
(FPL-XXX101-IS
-B773/H-SHXWM1M3/S
-EGLL1400
-N0450F310 L9 UL9 STU285036/M082F310 UL9 LIMRI 52N020W 52N030W 50N040W 49N050W
-CYQX0455 CYYR
-EET/EISN0026 EGGX0111 CZQX0228 REG/CFIUV SEL/FQHS CODE/C0173E)
```

**Note:** Inclusion of SATVOICE capability in the ICAO flight plan indicates to the air traffic controller that both the aircraft equipment is approved for use and that the flight crew has the appropriate qualifications and training to use it.

### SATVOICE Calling Codes

To avoid service disruptions, operators should ensure that the short codes are programmed into their systems as long codes are subject to change.

Site	City	Long Code	Short Code
ZEG	Edmonton, AB	1-780-890-2775	431601
ZQX (Dom.)	Gander, NL	1-709-651-5297	431602
ZQX (Ocean.)	Gander, NL	1-709-651-5260	431603
ZQX (IFSS)	Gander, NL	1-709-651-5298	431613

A complete list of the FIRs providing SATVOICE services and their respective long and short codes can be found in the AIP Canada (ICAO), Part 1 – General (GEN), Section GEN 3.4.4.1, “Voice Services”.

### **Further Information**

For further Information, please contact:

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