



FISE RCO System

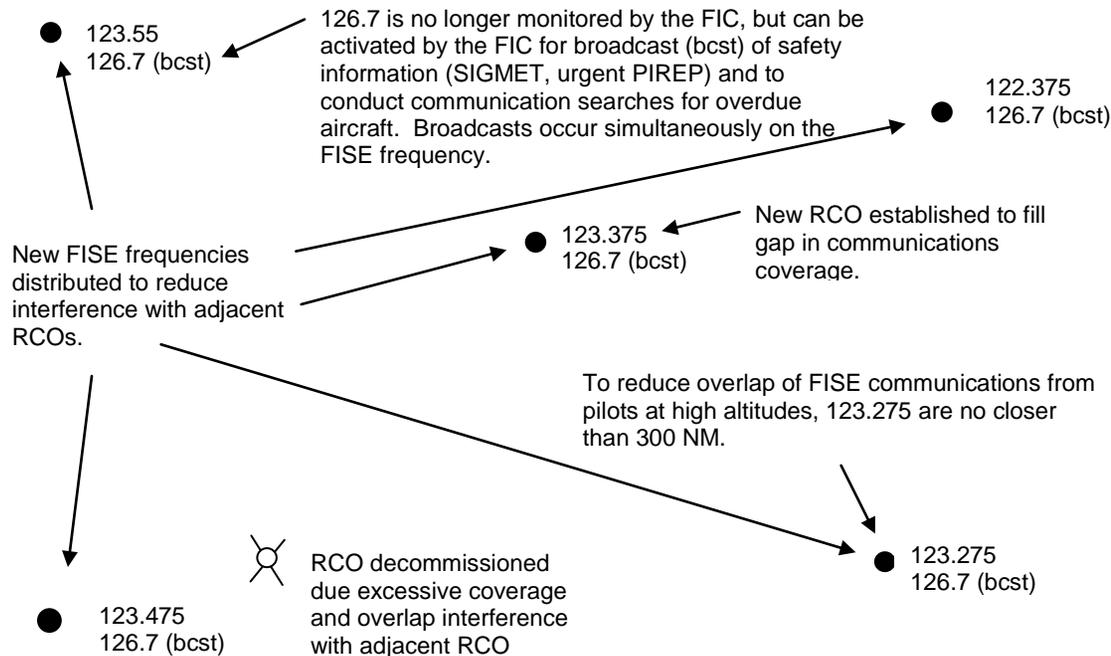
A Flight Information Service Enroute (FISE) Remote Communications Outlet (RCO) uses VHF transmitters/receivers to provide a remote communications link between pilots and flight service specialists, at a Flight Information Centre (FIC) facility, who provide the following services:

- FISE, which includes the provision of aviation weather information, NOTAMs, accepting/updating flight plans, position reports and pilot reports (PIREPs);
- Aeronautical broadcast service, which consists of broadcasting information that could impact flight safety but may not have been available to a pilot prior to take-off such as SIGMETs and urgent PIREPs;
- Communication searches by flight service specialists to determine the status of an overdue aircraft; and
- Relay IFR clearances, wind and altimeter information to conduct an instrument approach and special VFR authorizations at aerodromes within control zones.

Example Previous FISE RCO System ● FISE RCO

- 122.5
126.7
- Problems:
 - 126.7 is used for pilot broadcasts of position and intentions in uncontrolled airspace – interferes with provision of FISE on 126.7 & vice-versa.
 - High demand for FISE on 126.7 creates congestion and interference on other 126.7 RCOs.
 - Pilots at high altitudes requesting FISE on 126.7 prevent FISE being provided from other 126.7 RCOs in the area.
 - Some areas of the country have gaps in coverage along commonly used VFR routes.
 - Some RCOs are too close to each other causing overlap, interference and feedback problems.
- 126.7
- 126.7
- 126.7

Example Redesigned FISE RCO System



What were the Problems?

In most areas of the country FISE services were provided on one frequency, 126.7 MHz. This is also the frequency designated for use by pilots (both VFR & IFR) to broadcast their position and intentions while operating in uncontrolled airspace. In some areas of the country, a large demand for FISE service in combination with high levels of pilot 'position and intention' broadcasts resulted in frequency congestion and interference on 126.7 MHz. This has an impact on the safety of flight operations. In addition, some RCOs were close enough that they interfered with each other or resulted in coverage overlap while in some areas of the country there were large gaps in RCO coverage.

What were the Solutions?

To resolve the safety concerns and to improve the overall provision of flight information service, NAV CANADA redesigned the RCO system as follows:

- Five frequencies dedicated to FISE (122.375, 123.275 MHz, 123.375 MHz, 123.475 MHz and 123.55 MHz) were established at most RCO locations. In some locations these frequencies were not compatible and others were chosen. Note that radios do not need to display to three decimals to use these new frequencies. For instance 123.275 = 123.27 (See TC AIM – COM 5.3).
- RCO's were sited approximately 220 NM apart, along airways, air routes and VFR flyways. The 220 NM separation guideline was based on a requirement for a pilot to get a weather information update once every hour while flying an aircraft at 3,000 feet above ground at 120 knots. In mountainous areas spacing of RCOs will be closer in order to meet coverage requirements for VFR flyways in valleys. In areas of high demand extra RCOs were established or retained.
- Except at the few sites that continue to use 126.7 MHz for FISE, FIC flight service

specialists will no longer monitor 126.7 MHz. However, 126.7 MHz communications were retained at most RCO sites and flight service specialists can selectively activate the 126.7 MHz RCO transceiver when required in order to provide the aeronautical broadcasting service (safety messages such as SIGMET, urgent PIREP) and to conduct communication searches for overdue aircraft. When the 126.7 MHz transceiver is selected the FISE transceiver is activated also for simultaneous broadcast on both frequencies. RCO sites with this configuration for 126.7 MHz will be published in the CFS and on charts as "**126.7 (bcst)**".

- At sites where lower traffic levels and less demand for FISE permitted, 126.7 MHz is used to provide both FISE and aeronautical broadcasts.
- Some new RCOs were installed and some were decommissioned in order to provide more uniform and effective enroute communications coverage.

Status?

Changes to the RCO system began in 2006 and were completed in 2014. The NAV CANADA web site includes a series of maps that indicate each FIC area of responsibility and the FISE RCOs under their control. These maps and RCO lists are reproduced in the **Canada Flight Supplement (CFS) in the Planning Section (C)** just before the VFR Chart Updating Data information. RCO locations and frequencies are also indicated on VFR and IFR navigation charts and in the CFS Aerodrome/Facility section under COMM for aerodromes where an RCO is sited.

Communication Practices

To help reduce frequency congestion/interference and improve coordination between pilots and enhance the provision of flight information services, pilots should apply the following communication practices:

- Pilots should monitor 126.7 MHz when in uncontrolled airspace and broadcast their position and intentions on this frequency when VFR or IFR so they can co-ordinate their flight with other aircraft. Any pilot-to-pilot communications not for this purpose should be conducted on 122.75 MHz (within the Canadian Southern Domestic Airspace) or 123.45 MHz (within the Northern Domestic Airspace and the North Atlantic).
- For FISE, on initial contact with the FIC pilots should state the name of the FIC controlling the RCO, the aircraft identification and the name of the location of the RCO followed by the individual letters R-C-O in a non-phonetic form.

Example: HALIFAX RADIO, GOLF ALPHA BRAVO CHARLIE ON THE MONCTON R-C-O.

For additional information on the RCO System including RCO maps and this Brochure, visit the NAV CANADA web site www.navcanada.ca under **PRODUCTS & SERVICES / Flight Planning / Other Resources / RCO Maps**

Contact Us

Send your feedback or questions to service@navcanada.ca or call 1-800-876-4693.