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For July 16, 2020 edition of Aeronautical Information Manual

5-3-1.

g. SATVOICE Communication Services for Air Traffic Control in Anchorage, New York and Oakland Oceanic Control Areas (OCAs).

1. The FAA provides voice services for communications between aircraft and oceanic air traffic controllers at the Anchorage, New York and Oakland Air Route Traffic Control Centers, as well as with radio operators at New York and San Francisco Radio. These services are available via High Frequency (HF) radio, as well as satellite voice (SATVOICE) through Inmarsat and Iridium satellite service providers. This paragraph focuses on the FAA's SATVOICE services as a supplement to HF voice communications in oceanic airspace where the U.S. provides air traffic control.

2. Where "at least two independent long range communication systems" (LRCS) are required by 14 CFR parts 121, 125, and 135, SATVOICE or RCP 240 SATCOM CPDLC systems may be used to satisfy the LRCS requirement provided that each system uses a different satellite communications (SATCOM) service provider, i.e. Inmarsat and Iridium. Operators must still comply with 14 CFR regulations on how many voice communication systems are required, as well as with applicable Minimum Equipment List (MEL) provisos.

3. In most situations, pilots on flights beyond the range of VHF/UHF communications, e.g. an oceanic flight, communicate with a radio station, e.g. New York Radio, vice directly with an air traffic controller. The radio operator relays requests, clearances and other communications between ATC and the flight crew. As such, the flight crew maintains in communications contact with the radio operator vice ATC throughout the oceanic portion of the flight. The use of SATVOICE as an option does not change this basic communications arrangement. All operators in oceanic (high seas) airspace must comply with ICAO Annex 2, which requires aircraft "maintain a continuous air-ground voice communication watch on the appropriate communication channel..." (Paragraph 3.6.5.1). To maintain a continuous air-to ground voice communication watch using SATVOICE, the pilot must always have the ability to receive a priority 2/HGH/Q12 (designators meaning "Operational High, Safety of Flight") call from the relevant aeronautical radio station. Depending on aircraft equipage, two general options are available:

(a) If using single-channel SATVOICE equipment, restrict all calls not with the relevant aeronautical radio station to priority 3/LOW/Q10 (designators meaning "Operational Low, Safety of Flight"), thereby ensuring that an incoming call from the aeronautical radio station would preempt the lower priority ongoing call.

(b) If using multi-channel SATVOICE equipment, i.e., that allows simultaneous calls, employ procedures that ensure at least one channel is always available for an incoming priority 2/HGH/Q12 call from the aeronautical radio station.

4. The basic policy regarding use of SATVOICE for ATC-related communications is as follows:

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(a) Pilots must limit direct SATVOICE communications with ATC, e.g. contacting Anchorage, New York or Oakland ARTCC oceanic controllers, to distress and urgency situations, or when other means of communication are not available and communicating with ATC is essential.

(b) Pilots may contact New York or San Francisco Radio via SATVOICE for all air traffic control communications.

5. The aircraft's SATVOICE equipment must be approved in accordance with Advisory Circular (AC) 20-150 *Airworthiness Approval of Satellite Voice (SATVOICE) Equipment Supporting Air Traffic Service (ATS) Communications*. That AC, written primarily for designers, manufacturers and installers of SATVOICE equipment, also instructs operators on the required capabilities of their systems, as well as how the applicable Airplane Flight Manual (AFM) should reflect compliance with the document. Portable satellite telephones are not approved for normal and routine ATC communications. However, in distress or urgency situations, any viable communication method may be used.

6. The ATC flight plan must indicate your aircraft SATVOICE capability (through codes M1 or M3 as applicable in Item 10) and the aircraft's ICAO address (6-character hexadecimal code) through the use of the CODE indicator in Item 18, e.g. CODE/A1529D. The SATVOICE number is an octal representation of the ICAO address. You should also include the aircraft registration number in Item 18, using the indicator REG, e.g. REG/N12X45.

NOTE –

ICAO has created a new SATVOICE required communications performance (RCP) 400 designator, "P3," for use in item 10 ("Equipment") of the ATC flight plan. However, there is currently no requirement to file this RCP designator for SATVOICE. For more information relating to SATVOICE and RCP 400 performance, see ICAO Doc 9869, the Performance-based Communication and Surveillance (PBCS) Manual.

7. Satellite service providers have assigned the second highest priority to calls between ATC and aircraft. The associated priority designator is *2/HGH/Q12*. For safety and security reasons, pilots must only act upon ATC clearances or instructions received from SATVOICE calls displaying the *2/HGH/Q12* priority designator. If pilots have any doubt about the call's priority, and therefore the call's legitimacy, they should terminate the call and initiate a new call for confirmation.

8. Flight crews should use the same accepted professional standards of communication when using SATVOICE as they would if using VHF or HF voice communications. Those standards are explained in detail in this section of this manual. Flight crews should always use the full call sign when establishing SATVOICE communications. After contact has been established, the flight crew should continue the call without further identification except when the call is between more than two parties, i.e. conference call.

9. If SATVOICE is used, the operator must complete a "SATVOICE Callback Check" to confirm the flight can be reached by the ground station. Additionally, in the event the operator has indicated capability for SATVOICE via both Iridium and Inmarsat (by listing codes M1 and

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M3 in Item 10 of the ATC flight plan), the flight crew should inform the Radio operator of the service to use for communicating with the aircraft. A sample transcript of such a check is provided here:

TBL 5-3-1

Sample Transcript of SATVOICE Callback Check	
SATVOICE call from the air:	<i>“New York Radio, Airline 123, request SATVOICE Callback check.”</i> For aircraft equipped with both Inmarsat and Iridium: <i>“... on Inmarsat/Iridium (as applicable)”</i>
Answer from the ground:	<i>“Airline 123, copy, terminating call, will call you right back”</i>
New SATVOICE call from ground:	<i>“Airline 123, New York Radio with your SATVOICE Callback, how do you read?”</i>
SATVOICE answer from the air:	<i>“Loud and clear, SATVOICE Callback check good, good day!”</i>

10. Aircraft operators intending to conduct operations beyond Anchorage, Oakland or New York oceanic airspace must consult the State AIP applicable to other blocks of airspace along the route of flight to determine any restrictions to SATVOICE use, and in particular equipage requirements for HF radios.

11. If a SATVOICE connection is lost during a call, the party that initiated the original call should initiate the process to re-establish communications.

12. The aircraft SATVOICE system must be logged on to a satellite before SATVOICE can be used. This requires making prior arrangements, i.e. obtaining a subscriber account from one of the satellite communications providers.

13. The SATVOICE numbers for communications service providers and ATS units are published in the applicable AIPs and normally on aeronautical charts. The SATVOICE “short codes” for Anchorage, Oakland and New York oceanic controllers, as well as New York and San Francisco Radio, are provided below:

TBL 5-3-2

Oceanic Control Area (OCA)	ATC Direct (only for distress, urgency, other means not available)		ATC via Radio facility	
	ARTCC	SATVOICE Short Code	Radio facility	SATVOICE Short Code
New York East	New York ARTCC	436695	New York Radio	436623
New York West	New York ARTCC	436696		
Oakland	Oakland ARTCC	436697	San Francisco Radio	436625
Anchorage	Anchorage ARTCC	436602		

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14. Flight crews should use priority designator *2/HGH/Q12*, or for emergency/urgent calls, *1/EMG/Q15*, when contacting the Radio facility or ATC.