

**Eighteenth Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG/18)**

(Paris, France, 16-19 December 2014)

**Agenda Item 5: Provide Status on CPWG/17 Actions**

**Route Efficiencies within Anchorage Flight Information Regions**

**(Action Item #CP08-12 and #CP14-11)**

(The Federal Aviation Administration)

**SUMMARY**

This paper provides a brief update regarding route efficiencies within Anchorage Flight Information Regions (FIRs).

**1 Introduction**

1.1. In several past CPWG papers Anchorage ARTCC has been able to report on improved route efficiencies to, from and through the Cross Polar and Russian Trans East (RTE) airspace. While no new efficiencies can be reported today, this paper provides an update on current routing requirements and prospects for future enhancements.

**2 Discussion**

2.1. FAA's routing requirements for Cross Polar and RTE flights transiting the Anchorage FIRs are found in FAA's "Supplement, Alaska" publication and in published Notices to Airmen (NOTAM). The operative portion of the Supplement is attached to this paper and is titled, "Russian IFR Routes". The two operative NOTAMs are identified as PAZA A0367/14 and PAZA A0395/14 and copies of each are also attached.

2.2. The routing constraints found in the attachments are driven by a variety of factors: lack of surveillance, variations in domestic versus international separation minima and, of course, traffic conflicts. Some constraints require bilateral (or multi-lateral) solutions. Solutions to some constraints however, can be achieved unilaterally - such as those we hope to enable via the "Anchorage Sector 64" project.

2.3 Once Sector 64 is established, and controllers have gained sufficient operational experience, Anchorage ARTCC expects to greatly reduce the constraints found in A0367. The currently envisioned goal is the elimination of all restrictions save this:

- a. aircraft flight planning Russian entry / exit points over or north of BARIP shall also flight plan so as to cross the PAZA / CZEG FIR boundary over or north of 7330N14100W; and
- b. aircraft flight planning Russian entry / exit points over or south of PILUN shall also flight plan so as to cross the PAZA / CZEG FIR boundary over or south of 7230N14100W.

(Note that the requirement to mandatorily flight plan a specific 141W crossing point will also be removed.)

2.4 Operators will understand that the goal identified in 2.3 above is subject to revision based upon changing circumstances and operational experience. Operators should also know that the current constraints, and there foreseen replacements, only consider west to east and east to west flight. Currently traffic demand for north / south and south / north flight through the Anchorage Arctic FIR is negligible. Increase in this type of traffic will qualify as “changing circumstances” and may require additional traffic management initiatives.

### **3 Recommendation**

3.1. The Meeting is invited to note the information provided in this paper.

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**RUSSIAN IFR ROUTES**


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The following information is for flights that transit the Flight Information Region (FIR) boundary between the Anchorage and Russian FIRs (Murmansk, Magadan, Anadyr or Petropavlovsk/Kamchatsky). The procedures noted are mandatory. Failure to comply with these procedures may lead to delays, sub-optimal altitude assignment and/or denial of entry into the FIR. Cross Polar routes transit the Anchorage/Murmansk and Anchorage/Magadan FIR boundaries at and north of LISKI (7024N 16858W). Russian Trans East (RTE) routes transit the Anchorage/Russian FIR boundary south of LISKI.

**PROCEDURES:**

- All operations must comply with current PAZA International NOTAMS.
  - All westbound flights operating across the Anchorage/Russian FIR boundary at or above FL280 must participate in the ZAN TA program.  
(The TA program is designed to assist ATC in sequencing aircraft proceeding westbound over the Russian FIR entry fixes. For the TA program to work efficiently, all parties must comply with the track advisory procedures and keep the TA program updated with current/correct information. An electronic copy of the ZAN Track Advisory User's Guide is available at the following website: [http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/enroute/oceanic/pacific\\_track\\_advisory/](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/enroute/oceanic/pacific_track_advisory/))
  - All aircraft transiting the Anchorage Arctic CTA/FIR north of 72°N shall report entering and exiting the FIR via the appropriate en route HF radio.  
Westbound flights crossing the Anchorage/Russian FIR boundary report: DEVID thru "Murmansk Control" on 11390, 8950, 5694 or 4672 kHz, report NALIM, LURUN, RAMEL, PINAG, NIKIN, ORVIT and AMATI through "Magadan Radio" on 15030, 13265, 11390, 8837, 6585 or 4712 kHz. Eastbound flights crossing the Russian/Anchorage FIR boundary report all positions through "Gander Radio" on 11279, 8891, 4675 or 2971 kHz. Eastbound and Westbound flights crossing the Anchorage/Edmonton FIR boundary also report via "Gander Radio" on frequencies noted above. In the event these HF stations are unreachable, operators may attempt relay through ARINC's "San Francisco Radio" Barrow, AK, LDOC station. The ARINC LDOC frequencies are 13348, 11342 and 6640 kHz.
  - All aircraft shall comply with the following routing requirements:
- A. CROSS POLAR ROUTES (including LISKI):**
- Operators flight planning DEVID (8900.0N 1685824W), regardless of direction of flight, shall also flight plan DEKMO (8852N 14100.0W).
  - Operators flight planning NALIM (862024N 1685724W), regardless of direction of flight, shall also flight plan over 8630N 14100W.
  - Operators flight planning LURUN (8525N 1685824W), regardless of direction of flight, shall also flight plan over 8530N 14100W.
  - Operators flight planning RAMEL (8430N 1685824W), regardless of direction of flight, shall also flight plan a point along 141° west longitude over or between RESUM (841442N 14100W) and 8350N 14100W.
  - Operators flight planning PINAG (8330N 1685824W), regardless of direction of flight, shall also flight plan a point along 141° west longitude over or between 8300N 14100W and 8200N 14100W.
  - Operators flight planning NIKIN (804936N 1685824W), regardless of direction of flight, shall also flight plan a point along 141° west longitude over or between COALL (8000N 14100W) and 8100N 14100W.
  - Operators flight planning ORVIT (7900N 1685824W), regardless of direction of flight, shall also flight plan over OMEKA (781036N 14100.0W).
  - Operators flight planning AMATI (7800N 1685824W), regardless of direction of flight, shall also flight plan a point along 141° west longitude over or between JESRU (745648N 14100W) and 7700N 14100W.
  - Operators flight planning PILUN (7200N 1685824W), regardless of direction of flight, shall also flight plan a point along 141° west longitude over or south of 7400N 14100W. In addition, Eastbound flights over PILUN shall also file a point over or north of 7200N 15700W.
  - Operators flight planning westbound over LISKI (702418N 1685824W), shall also file over or south of TAYTA (713342N 14100W). Operators flight planning eastbound over LISKI shall also file over or south of 7100N 15700W, thence via UPR.

**B. RUSSIAN TRANS EAST ROUTES:****Westbound Transitions:**

- FRENK, KUTAL, VALDA and ERNIK have no restrictions.
- RUSOR file "ROCET B241 RUSOR" thence B241 OR G370
- MARCC file "ROCET R338 MARCC" or "MUNRI G583 MARCC" or "PALIN G349 MARCC" thence G583
- BAMOK file "PALIN G349 KIVAK B932 BAMOK" or "LESAD B932 BAMOK" or "NOLTI direct EPLOS B932 BAMOK" thence B932
- KOKES file "NATES direct KOKES" thence B242
- LUMES file "NYMPH direct LUMES" thence G73
- KUNAD file "NUZAN direct KUNAD" thence G801

**Eastbound Transitions:**

- FRENK file "FRENK B244 OTZ" thence via UPR
- KUTAL file "KUTAL B233 SANGL" thence via UPR
- VALDA file "VALDA H222 ICEEE" thence via UPR
- ERNIK file "ERNIK B240 IDROD" thence via UPR
- RUSOR file "RUSOR B241 ROCET" thence via UPR
- MARCC file "MARCC G583 MUNRI" or "MARCC R338 ROCET" or "MARCC G349 PALIN" thence via UPR
- BAMOK file "BAMOK B932 LESAD" thence via UPR

**Prohibited Routes:**

- Do not file Eastbound via KOKES
  - Do not file Eastbound via LUMES
  - Do not file Eastbound via KUNAD
  - Do not file Eastbound or Westbound via BAGLI
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**PAZA ANCHORAGE (ARTCC),AK.**

**A0395/14** - REFERENCE THE ANCHORAGE ARCTIC CTA/FIR: TRANSIT OF THE ANCHORAGE ARCTIC CTA/FIR IS SUBJECT TO THE FOLLOWING MANDATORY REQUIREMENTS:

**A. COMMUNICATIONS.**

1. ALL FLIGHTS, REGARDLESS OF CPDLC STATUS, MUST MAKE MANDATORY VOICE POSITION REPORTS UPON ENTERING THE CTA/FIR VIA GANDER HF RADIO.
2. ALL FLIGHTS MUST MAINTAIN A LISTENING WATCH ON THE CURRENT GANDER HF RADIO FREQUENCY WHILE TRANSITING THE CTA/FIR UNLESS A SATISFACTORY SELCAL CHECK HAS BEEN COMPLETED WITH GANDER RADIO.

**B. ROUTING.**

1. FLIGHTS TRANSITING THE CTA/FIR MUST FILE VIA THE FOLLOWING ROUTING PAIRS:
  - DEVID / DEKMO;
  - NALIM / NEUTR;
  - LURUN / LEESL;
  - RAMEL / A POINT ALONG 141W OVER OR BETWEEN RESUM AND 8350N;
  - PINAG / A POINT ALONG 141W OVER OR BETWEEN PEASY (PEASY IS 8300N14100W) AND 8200N;
  - NIKIN / A POINT ALONG 141W OVER OR BETWEEN COALL AND 8100N;
  - SALET / SHOUP;
  - ORVIT / OMEKA;
  - AMATI / A POINT ALONG 141W OVER OR BETWEEN JESRU AND 7700N;
  - BARIP / BIITE;
  - PILUN / A POINT ALONG 141W OVER OR SOUTH OF 7300N (EASTBOUND TRAFFIC OVER PILUN SHALL ALSO FILE A POINT OVER OR NORTH OF 7200N15700W);
  - LISKI / WESTBOUND FLIGHTS FILE OVER OR SOUTH OF TAYTA (EASTBOUND LISKI FLIGHTS FILE OVER OR SOUTH OF 7100N15700W);
  - THENCE VIA UPR.

C. QUESTIONS CONCERNING REQUIREMENTS FOR COMMUNICATIONS, ROUTING, OR FLOW CONTROL MAY BE REFERRED TO ZAN TRAFFIC MANAGEMENT AT 1 (907) 269-1840. FL230 - UNL  
END PART 2 OF 2, 13 NOV 21:01 2014 UNTIL 31 DEC 23:59 2015 ESTIMATED. CREATED: 13 NOV 18:36 2014

**PAZA ANCHORAGE (ARTCC),AK.****A0367/14 - REFERENCE USER PREFERRED ROUTE (UPR) REQUIREMENTS FOR AIRCRAFT TRANSITING THE PAZA FIR.**

1. FLIGHTS CROSSING THE UHMM/PAZA OR ULMM/PAZA FIR BOUNDARY, OVER OR NORTH OF LISKI, MUST ADHERE TO THE ANCHORAGE ARCTIC FIR REQUIREMENTS NOTAM.
2. UPR ROUTES MUST AVOID THE AIRSPACE BOUNDED BY 53N162W, 5210N162W, 5210N165W AND 53N165W.
3. WESTBOUND UPR FLIGHTS MAY ENTER PAZA FIR AIRSPACE:
  - A. ANYWHERE OVER OR EAST OF KATCH PROVIDED FLIGHTS REMAIN IN THE PAZA FIR AIRSPACE AND DO NOT RE-ENTER THE CZEG FIR.
  - B. ANYWHERE BETWEEN KATCH AND 152 DEGREES 30 MINUTES WEST LONGITUDE, PROVIDED THE FLIGHT OVERFLIES ONE OF THE FOLLOWING: KATCH, HMPTN, GRIZZ, CJAYY, OR ODK
  - C. ANYWHERE OVER OR BETWEEN 152 DEGREES 30 MINUTES WEST LONGITUDE AND 170 DEGREES EAST LONGITUDE.
  - D. FLIGHTS ENTERING PAZA AIRSPACE BETWEEN NCA30 AND NCA10 MUST FLIGHT PLAN OVER ONE OF THE FOLLOWING FIXES: POTAT, GOATS, FIORD, CHAPO, FANES, TIBOY, EMSOW, BIBEM, AYZOL, GAHAM, TOVAD, OMSUN, JAGIT, COHIL OR DEEJA. (NON-RNP10 CERTIFIED AIRCRAFT MUST ALSO FILE THE ASSOCIATED NCA ROUTE OR AIRWAY TO THE FIRST NAMED POINT AFTER THE CZEG/PAZA BOUNDARY.)
4. WESTBOUND FLIGHTS ENTERING THE NOPAC MUST ADHERE TO THE FOLLOWING RESTRICTIONS:
  - A. MUST JOIN R220 NO FURTHER WEST THAN NATES. (EXCEPTION: AIRCRAFT ABLE FL400 BY 170W MUST JOIN NO FURTHER WEST THAN NIPPI.)
  - B. MUST JOIN R580 NO FURTHER WEST THAN OPAKE. (EXCEPTION: AIRCRAFT ABLE FL400 BY 170W MUST JOIN NO FURTHER WEST THAN OMOTO.)
  - C. A590 IS NOT AVAILABLE.
  - D. R591 AND G344 ARE NOT AVAILABLE UNLESS DESIGNATED AS WESTBOUND PACOTS TRACKS AND AIRCRAFT MUST CROSS THE RJJJ/PAZA FIR BOUNDARY BETWEEN 0000 UTC AND 0600 UTC. ADDITIONALLY, AIRCRAFT MUST JOIN R591 NO FURTHER WEST THAN AKISU OR MUST JOIN G344 NO FURTHER WEST THEN CUTEE.
5. EASTBOUND AIRCRAFT TRANSITIONING FROM THE NOPAC MUST FLIGHT PLAN ONE OF THE FOLLOWING TRANSITIONS:
  - A. A590: PASRO A590 POWAL.
  - B. R591: AKISU R591 ASPIN
  - C. G344: CUTEE G344 CARTO, OR CUTEE DCT 48N170E DCT 49N180E (OR A POINT NORTH OF 49N180E), OR CUTEE DCT 49N170E, OR CUTEE DCT 50N170E.
6. AIRCRAFT ON ESTABLISHED ROUTES, AIRWAYS, OR PACOTS TRACKS HAVE PRIORITY FOR ALTITUDE ASSIGNMENT OVER UPR FLIGHTS IN THE PAZA FIR.
7. AIRCRAFT CROSSING NOPAC OR OTHER ATS ROUTES IN NON RADAR AREAS MAY BE REQUIRED TO DESCEND.

REFER QUESTIONS TO ANCHORAGE ARTCC INTL PROCEDURES AT 907-269-1801 OR TO  
ANCHORAGE ARTCC TRAFFIC MANAGEMENT AT 907-269-1840. FL270 - UNL END PART 4 OF 4, 25  
SEP 16:12 2014 UNTIL PERM. CREATED: 25 SEP 16:46 2014