

Surveillance and Broadcast Services

Alaska Industry Council

By: FAA, WSA

Date: July 9, 2008



Federal Aviation
Administration



AGENDA

- Opening Remarks – Wes Mooty
- Navigation Services Update – JoAnn Ford
- S.E. Avionics Transition – Jimmy Wright
- Technical Update/Implementation – Wes Mooty
- Operational Brief – Jim Hill
- AIC Update – Jim Cieplak, Dee Hanson
- Round Table





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AIR TRAFFIC ORGANIZATION

Capstone Industry Council Meeting - GNSS Update

JoAnn Y. Ford

Navigation Systems Engineering

July 9, 2008

Navigation Services Update Profile: effective July 2008

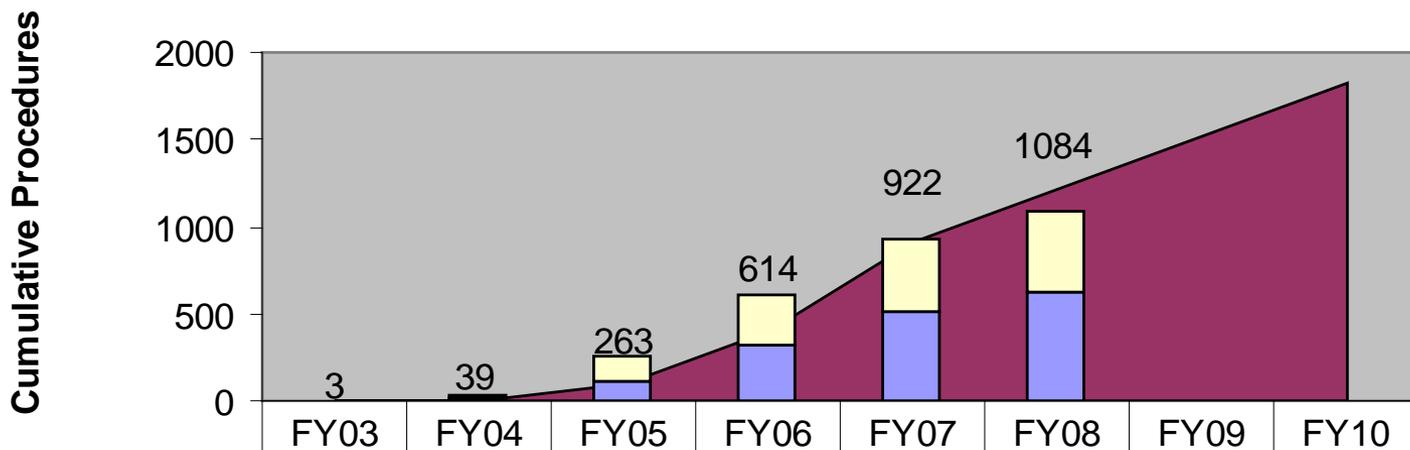
- NAS Published LPVs
 - Alaska LPVs
- Alaska WAAS Availability
 - COG meeting July 1-2, 2008
- Status of:
 - WAAS Equipage
 - Cold Bay WAAS Ground Reference Station Potential Relocation
 - WAAS Predictive NOTAMs
 - Inverse Ws
 - DF Study

LPV Procedure Publication Progress to Date
(Current and all prior years)
(Next publishing date: July 31st)

LPVs Published to non-ILS Runways	626
LPVs Published to ILS Runways	<u>456</u>
Cumulative LPVs Published to Date	1084

LPVs Published to <250' Decision Altitude 14

FY08 LPV Production Status



	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
FLIGHT PLAN CUM GOAL	0	0	100	400	914	1222	1522	1822
NON-ILS RWY ENDS	1	10	106	328	516	627		
ILS RWY ENDS	2	29	157	286	406	457		

Annual Production Totals

	FY03	FY04	FY05	FY06	FY07	FY08	FY08 Goal
Non-ILS Runway Ends	1	9	95	222	188	117	
ILS Runway Ends	2	27	126	129	120	46	
Total LPV per year	3	36	221	351	308	163	300 (Flight Plan)

Alaska LPV approaches

- Total 16 - Current LPV approaches (as of July 3rd)
 - **Anchorage 3, Homer 2, Emmonak 2, St. Michaels 1, St. Mary's 2, Yakutat 1, Deadhorse 2 (NA UFN), Kenai 2, Selawik 1**
- “Planned” (Tentative) LPV approaches as of July 3, 2008
 - July 31, 2008
 - Bethel Rwy 1L/19R
 - Cold Bay Rwy 32
 - Ruby RWY 21, AMDT 2
 - Gulkana RWYS 15/33

“Planned” (Tentative) LPV approaches as of July 3, 2008

- September 25, 2008
 - Galena RWYS 25/7
 - Huslia Rwy 3/21
 - Ketchikan RWY 11
 - King Salmon RWYS 11/(Y)29/(Z)29
 - Kwethluk RWYS 18/36
 - Napakiak RWYS 16/34
 - Prospect Creek
 - Shageluk RWYS 16/34

- November 20, 2008
 - Cordova RWY 27

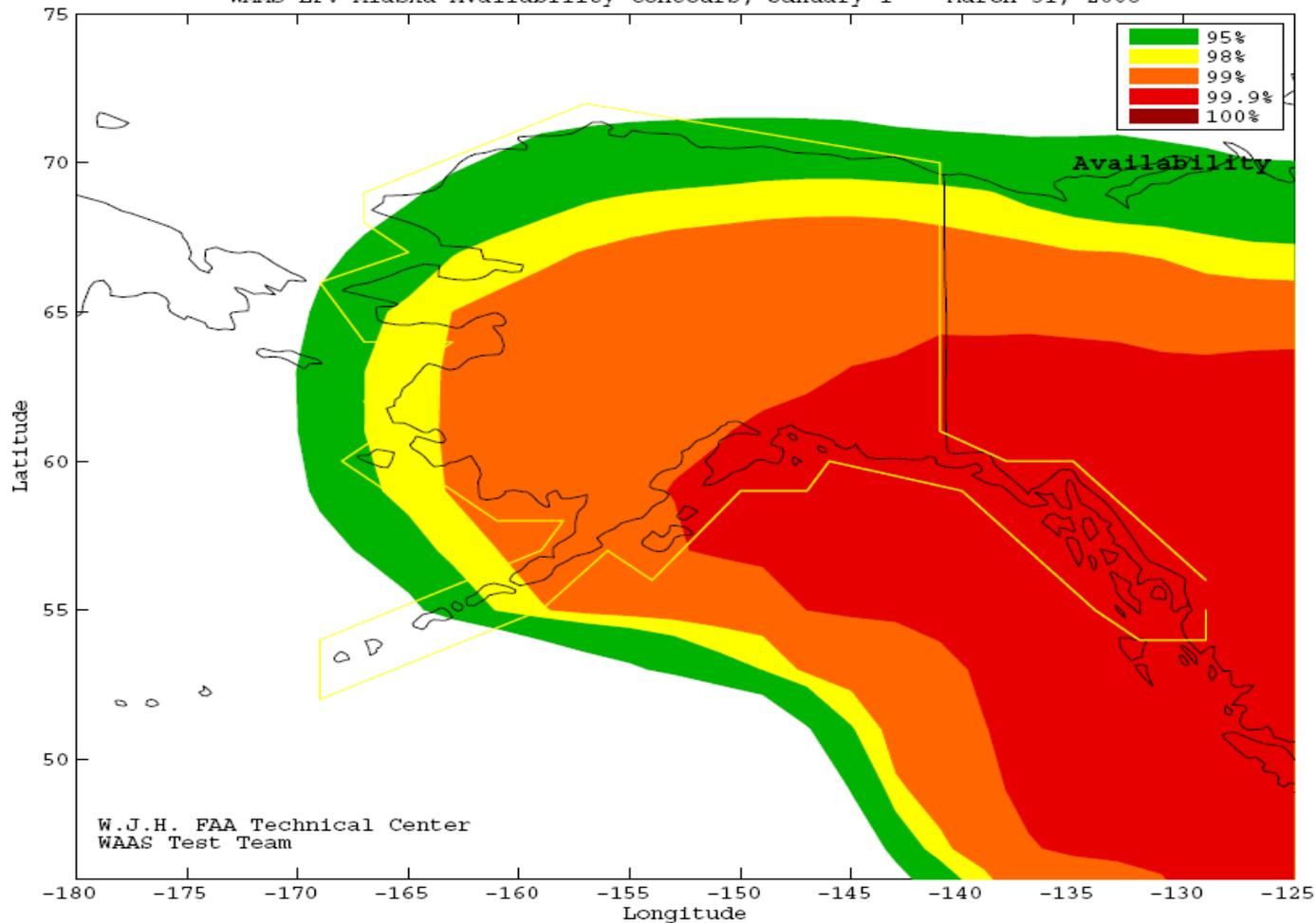
“Planned” (Tentative) LPV approaches as of July 3, 2008

- 2009
 - Quinhagak
 - Gustavus (Y) RWY 29
 - Fairbanks
 - Elim
 - Kodiak
 - Adak Island
 - Noorvik/Robert/Bob/Curtis
 - Clarks Point
 - Cold Bay Rwy 14, AMDT 1
 - Barrow
 - Chuathbalak

“Planned” (Tentative) LPV approaches as of July 3, 2008

- 2009 (cont)
 - Tatitlek
 - Shaktoolik
 - Lliamna
 - Kuparuk
 - Kaltag
 - Koyukuk
 - Nuiqsut Rwy 3 AMDT1, Rwy 21 AMDT 1
 - Nome RWY 28, AMDT 1
 - Kotzebue RWY 9 AMDT 2
 - Sand Point
 - Sitka Sitka RWY 11
 - St. Paul

WAAS LPV Alaska Availability Contours, January 1 - March 31, 2008



Alaska Coverage at 95% Availability = 94.57%
Alaska Coverage at 99% Availability = 67.39%
Alaska Coverage at 100% Availability = 0%

SL = LPV

WAAS Equipage

- Approx 33,665 (previous 32,181) WAAS-capable (TSO-145 or TSO-146) (number does not include SAAAR and/or ongoing R&D)
 - GARMIN: +2,000 each month
 - GNS 480, GNS430W/530W, GNS 430/530Upgrades, G1000
 - UNIVERSAL
 - “First Air” B737-200 Uses Universal Avionics' WAAS-FMS (dual [UNS-1Fw](#) FMSs) for LPV Approach in Waterloo Intl Arpt, Ontario, Canada
 - Made possible by installation of WAAS GRS @Goosebay, Gander, Winnipeg, and Iqaluit
 - UNS-1Fw FMS system is installed on the airline's entire fleet of 737s, 727s and ATRs
 - UNS-1Fw FMS is certified for Part 23 and Part 25 aircraft and meets FAA TSO-C146b Gamma-3 and DO229D certification criteria
- Alaska equipage – Alaska Airlines, Horizon, PennAir, Northern Air Cargo

Other Alaska Updates

- Status of:
 - Cold Bay WAAS Ground Reference Station Potential Relocation
 - WAAS Predictive NOTAMs
 - Inverse Ws
 - DF Study
 - Study ongoing; team convened
 - Discussion ref sending new tech DF's that are decommissioned in lower 48 to Alaska to replace old tech DFs, until satisfactory DF alternative can be implemented

SE Avionics Transition Schedule

- Conducted initial town hall meetings in SE to present plan
- Deliver letters to owners by the end of August 08
- Collect responses by end of September 08
- Complete all transfer documents for owners choosing to keep equipment by December 31, 2008
- Develop uninstall plan by December 31, 2008 for those choosing to uninstall
- Complete all uninstalls by May 1, 2009

Alternatives Synopsis for SE Avionics Transition

1. If the net value is less than or equal to zero, the avionics suite will be transferred to the aircraft owner at no cost.
2. If the net value is greater than zero and the owner wants to retain the equipment, the aircraft owner will be given the option to purchase the Capstone avionics suite from the FAA for its net value.
3. If the net value is greater than zero, and the owner decides not to purchase the avionics suite, it must be removed from the aircraft by the owner and returned to the FAA.
 - FAA will reimburse the owner for removal of the avionics and insured shipment to Anchorage.

Status

- **Draft Avionics Transition Plan complete**
 - Describes schedule and required activities
- **Draft Communications Strategy complete**
 - Proactive approach
 - Coordinate inter-agency interests
 - Including Logistics and General Council
 - Town hall meetings to inform owners and operators
 - Information packets to be mailed to owners
- **Based on Town Hall meetings**
 - # of operators possibly returning equipment - 0

Information Needs: Aircraft Owners and Pilots

- **Town hall meetings**
 - Co-hosted by Alaska Implementation Committee and FAA
 - Basic information session and Q&A
- **Information packet**
 - Cover letter
 - Detailed instructions
 - Schedule
 - POCs and contact information

SBS Technical Update – GBT Sites

- **Service Volume 6 (ANC-FAI) and 13 (OTZ) for FY08**
 - **GBT Service Delivery**
 - Anchorage - Available today
 - Fairbanks – Preliminary JAI, June 18th, FIS now available
 - Kotzebue – 22 JUL 08
 - Reindeer Hill – 25 AUG 08
- **Service Volume 11 (OME) and 13 (OTZ) for FY09**
 - **Anticipated GBT Service Delivery**
 - Savoonga (SV11) – 01 AUG 09
 - Moses Point (SV11) – 14 AUG 09
 - Newton Peak (SV11) – 30 AUG 09
 - Shishmaref (SV11) – 14 SEP 09

 - Point Hope (SV13) – 01 SEP 09
 - Kivalina (SV13) – 15 SEP 09
 - Selawik (SV13) – 30 SEP 09



Planned Automated Weather Observation Systems (AWOS) and Radio Communication Outlets (RCO) for Airport Upgrades

Automated Weather Observation Systems (AWOS)

• Commissioning in FY08

- Teller
- Walles
- Chevak
- Kiana
- Shungnak
- Galena
- Barter Island

• Installation in FY08 - FY09

- Brevig Mission
- White Mountain
- Shaktoolik
- Robert/Bob Curtis (Noorvik)
- Elim
- Larson Bay

Radio Communication Outlets (RCO) Projects

– Installation FY08 – FY09

- Brevig Mission
- White Mountain

– Installation FY09 – FY10

- Larson Bay

Juneau Wide Area Multilateration (WAM)

Milestone	Projected Completion Date
Lease Modifications	June – July 2008
Site Preparations	July - August 2008
Site Installation	September 2008
MEARTS Modification	October 2008
Site Acceptance Test (SAT)	December 2008
Separation Standards Approval	May 2009
Initial Operating Capability	June 2009



SBS Operational Update

- **Performance Based Navigation**
 - T&Q Routes
- **ADS-B Surveillance Expansion**
 - Update VFR to IFR airport upgrades



AIC Update

- **AIC continues to meet bi-weekly**
- **Coordinate, State, Federal and FAA interests**
 - Recommendation to Division of Investments “Alaska Capstone Avionics Revolving Loan Fund.” - Complete
 - Loan Applications due out by July 1st.
- **Next Steps**
 - Outreach Committee to put together avionics equipage informational package
 - Draft package complete, waiting on loan applications
 - Avionics Outreach Team to go on the road with informational package