PBN Update



Optimization of Airspace & Procedures in the Metroplex (OAPM)

Performance Based Navigation (PBN) Non-OAPM

Third Party Vendor Development of PBN Procedures

NAVLean Implementation Status





Federal Aviation Administration







Federal Aviation Administration

VextGEN

OAPM FY 12 & FY 13 Milestones Summary

and Dashboard Status a/o July 30, 2012

No.	FY 12 Milestone	Date
1	So. California Study Report Complete	Dec 2011
2	Houston Design Kickoff	Jan 2012
3	DC Design Phase Complete	Mar 2012
4	No. California Design Phase Kickoff	Mar 2012
5	No. Texas Design Phase Complete	Apr 2012
6	DC Evaluation Phase Start	Apr 2012
7	No. Texas Evaluation Phase Start	May 2012
8	So. Florida Study Phase Kickoff	May 2012
9	Houston Design Phase Complete	Jul 2012

No.	FY 13 Milestone	Date
1	Charlotte Design Phase Complete	Nov 2012
2	Atlanta Design Phase Complete	Nov 2012
3	No. California Design Phase Complete	Dec 2012
4	Houston Evaluation Phase Complete	Jan 2013
5	Houston Implementation Kickoff	Jan 2013
6	DC Evaluation Phase Complete	Jun 2013
7	No. Texas Evaluation Phase Complete	Jun 2013

Complete

									On Track	Misse	ed
						Evaluati	ion				
											Post-
			Design	Design	Environmental	Environmental			Implementation	Implementation	Implementation
Site	Study Start	Study End	Start	End	Start	End	SMS Start	SMS End	Start	End	Initiation
DC	9/9/2010	11/12/2010	6/11/2011	3/1/2012	4/6/2012	6/28/2013	9/29/2012	3/29/2013	7/1/2013	6/30/2014	9/30/2014
North Texas	9/1/2010	12/16/2010	7/1/2011	4/1/2012	5/4/2012	6/28/2013	9/1/2012	4/30/2013	7/1/2013	6/30/2014	9/30/2014
Charlotte	2/3/2011	5/13/2011	2/13/2012	11/16/2012	4/19/2012	2/19/2014	4/22/2013	11/18/2013	2/28/2014	2/27/2015	5/29/2015
Northern California	2/10/2011	5/20/2011	3/19/2012	12/21/2012	4/17/2012	3/31/2014	5/13/2013	12/13/2013	3/31/2014	3/31/2015	6/30/2015
Houston	5/10/2011	8/19/2011	1/9/2012	7/6/2012	2/14/2012	1/12/2013	10/1/2012	12/31/2012	1/13/2013	12/28/2013	3/31/2014
Atlanta	8/3/2011	12/1/2011	2/27/2012	11/30/2012	4/19/2012	10/18/2013	4/1/2013	10/1/2013	12/12/2013	12/12/2014	3/31/2015
Southern California	8/11/2011	12/1/2011	10/15/2012	7/8/2013	7/29/2013	12/31/2014	2/28/2014	10/31/2014	12/31/2014	12/31/2015	3/31/2016
South/Cent Florida	5/15/2012	9/28/2012	4/15/2013	1/24/2014	2/10/2014	12/31/2014					
Phoenix	10/28/2012	3/14/2013	6/17/2013	12/31/2013							





May Be Missed

OAPM Site Timeline/Phase Description



- <u>Study and Scoping</u>: The Study Phase is conducted by study teams that identify issues and propose potential solutions through facility and industry interface meetings. Industry representation is achieved with lead carrier representatives. The result of this phase is a set of conceptual designs, with a high-level assessment of benefits, costs, and risks.
- <u>Design and Procedure Development</u>: The Design Phase is where the detailed Integrated Airspace and Procedures design work is conducted. The work conducted in this phase uses the results of the study teams and is conducted by a D&I team. Industry representation is achieved with lead carrier representatives. When appropriate and justified, on-site Human-in-the-Loop (HITL) simulations and other design analyses may be part of this phase.
- <u>Evaluation</u>: The Evaluation Phase is the second stage conducted by the D&I team. It includes all necessary operational modeling, safety management system (SMS) analyses, and environmental reviews. Industry representation is achieved with lead carrier representatives. If analyses are conducted during the Design Phase, they may feed into the Evaluation Phase.
- Implementation and Training: The Implementation Phase is the last part of the OAPM process conducted by the D&I team. This phase includes all steps required for implementation of the OAPM project including flight inspections, publishing procedures, planning and executing training. Industry representation is achieved with lead carrier representatives.
- <u>Post Implementation Review and Modifications</u>: The Post-Implementation Phase includes a review of the implemented airspace and procedures changes to determine if they have delivered desired benefits and/or caused other impacts. Modifications or refinements may be made to better achieve desired benefits or address unforeseen impacts.



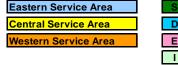


Current OAPM Schedule

a/o July 30, 2012

	FY	11		FY	′12			FY	′13			FY	14			FY	′15			FY	16			FY	17			FY18	В
Site	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3
DC	D	D	D	D	Е	Е	Е	Е	Е	Т	I	Т	I	Р	Р														
No Tex		D	D	D	Е	Е	Е	Е	Е	Т	I	Т	I	Р	Р														T
Houston	S	S		D	D	Е	Е	I	Т	I	I	Р	Р																Τ
Charlotte	S			D	D	D	Е	Е	Е	Е	Е	Е	Т	Т	Т	I	Р	Р											Τ
Atlanta		S	S	D	D	D	Е	Е	Е	Е	Е	Т	I	I	I	Р	Р												Τ
No Cal	S			D	D	D	Е	Е	Е	Е	Е	Е	I	I	I	I	Р	Р											
So Cal		S	S				D	D	D	Е	Е	Е	Е	Е	Е	Т	Т	I	I	Р	Р								Τ
Florida					S	S			D	D	D	Е	Е	Е	Е	Т	Т	I	I	Р	Р								Τ
Phoenix							S	S	D	D	D	Е	Е	Е	Е	Е	Т	I	I	Т	Р	Р	Р						Τ
Chicago								S	S	D	D	D	Е	Е	Е	Е	Е	I	I	Т	Т	Р	Р						Τ
Memphis											S	S		D	D	D	D	Е	Е	Е	Е	I	I	I	I	Р	Р		
Cleveland/Detroit											S	S		D	D	D	Е	Е	Е	Е	Е	Ι	I.	I	Ι	Р	Р		Τ
Boston												S	S		D	D	D	Е	Е	Е	Е	Е	I	-	I	I	Р	Р	

Key:



S Study D Design E Evaluate

P Post-Eval

Milestone Leads Organizational Symbol	Functional Description
AJV-1	Airspace Services
AJV-121	Airspace Optimization Group
AJV-E	Mission Support, Eastern Service Center
AJV-C	Mission Support, Central Service Center
AJV-W	Mission Support, Western Service Center
AJV-114	Environmental Analysis
AJW-3	Aviation Systems Standards





Washington DC FYs 12 & 13 Milestones

	Study and Scoping	Design and Procedure Development	Operatio	Eval Phas nal, Environn Reviev	nental, and SM	S Impl	lementatio Training	Post- Implementation Review and Modifications	
				L5 Mont	hs) (12 M	onths		<u>A4A</u> <u>Core 30</u>
			Phase Start	3/26/2012	AJV-1		7/4/0040	AJV-1	1
Complete 11	/12/2010	Complete 3/1/2012	EA Kickoff	4/6/2012	AJV-1 14	Phase Start	7/1/2013	AJV-I	Complete
Complete 11			SMS Initiate	6/18/2012	AJV-C	Immi Diam	0/0/004.0		Complete
			EA Purpose and Need Sect	6/29/2012	AJV-114	Impl Plan Complete	8/2/2013	AJV-121	On Track
			EA Alternatives Sect	8/3/2012	AJV-114	Training Plan Complete	9/14/2013	AJV-121	May Be
			EA Affected Enviro Section	8/24/2012	AJV-114	Flight Checks	1/17/2014	AJW-3	Missed
			Facilitation SRM Panel	9/14/2012	AJV-C	Stakeholder Coordination	2/20/2014	AJV-1	Missed
			Final Ops Validation	9/28/2012	AJV-121	Training Complete	5/30/2014	AJV-121	FY14 or beyond
			100% Design Complete	9/28/2012	AJV-121	Implementation Complete	6/30/2014	AJV-121	
			SMS draft doc. completed	10/12/2012	AJV-C				-
			EA Enviro	11/30/2012	AJV-114				
			Consequences Sect			RISKS	S/NOT	ES: N	ONE
			SMS final doc.	12/14/2012	AJV-C		-		
_		Image: Signed of the second							
			Draft EA	2/28/2013	AJV-114				VextGEN
		•	SMS Process Complete	3/29/2013	AJV-C			-	

AJV-114

Final EA/FONSI

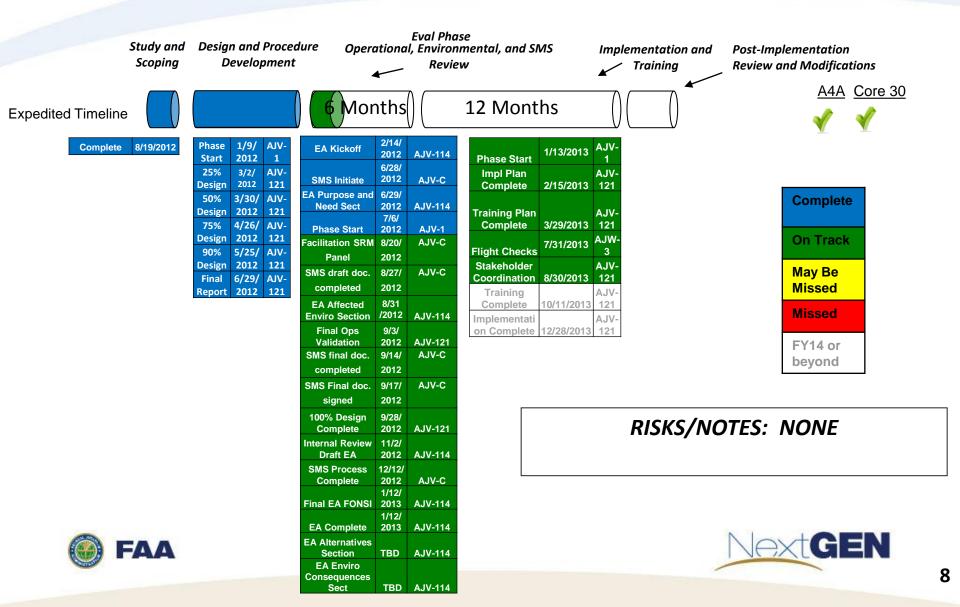
6/28/2013

North Texas FYs 12 & 13 Milestones

Study and Scoping	Design and Procedure Development	Eval Ph Operational, Environ Review	mental, and	SMS	Implementation and Training	Post- d Implem Review Modifie	
		14 N	lonths		12 Month	s () (<u>A4A</u> <u>Core 30</u> ✓ ✓
		Phase Start	4/30/2012	AJV-1			
Complete 12/16/10	Complete 4/1/2012	EA Phase Start	4/30/2012	AJV-1 14	Phase Start 7/1/2	AJV-1	Complete
		EA Kickoff	5/4/2012	AJV-114	Impl Plan	AJV-121	
		EA Purpose and Need Section	7/18/2012	AJV-114	Complete 8/1/2 Training Plan		On Track
		Final Ops Validation	7/27/2012	AJV-121	Complete 9/14/	2013 AJW-3	May Be
		EA Alternatives Sect	8/7/2012	AJV-121	Flight Checks 1/17/		Missed
		100% Design Complete	8/30/2012	AJV-121	Stakeholder Coordination 2/20/ Training	AJV-1 2014 AJV-121	Missed
		Facilitation SRM Panel	9/17/2012	AJV-C	Complete 5/30/		FY14 or
		SMS Initiate	9/30/2012	AJV-C	Complete 6/30/		beyond
		EA Affected Enviro Section	10/5/2012	AJV-114			
		SMS draft doc. completed	11/30/2012	AJV-C	-		am addressing
		EA Enviro Consequences Sect	12/18/2012	AJV-114	SWA's concern		,
		SMS final doc. completed	2/1/2013	AJV-C	result in some milestones, bu	-	
		Draft EA	3/14/2013	AJV-C	overall phase	-	-
		SMS Final doc.					
		signed	4/30/2012	AJV-C		NI	ACEN
💓 FAA		SMS Process Complete	4/30/2013	AJV-114		INE	EXTGEN
		Final EA FONSI	6/28/2013	AJV-1		C. C	1.2.7.
		EA Complete	6/30/2013	AJV-1 14			

7

Houston FYs 12 & 13 Milestones



Charlotte FYs 12 & 13 Milestones

Study and Scoping	² Drocoduro			Eval F Operational, Envir Ret		and SMS	Implementation o Training	and Ir R	Post- Implementation Review and Modifications		
	9	Mor	hths	15 1	Months	5				A4A Core 30	
				EA Kickoff	4/19/2012	AJV-114					
Complete 5/13/11	Phase	2/13/ 2012	A 137 A	Phase Start	11/19/2012	AJV-1	Phase Start	AJV-1		Complete	
	Start 25%	4/20/	AJV-1 AJV-	EA Phase Start	11/19/2012	AJV-114	Impl Plan	AJV-			
	Design	2012	121	EA Purpose and Need	1/21/2013	AJV-114	Complete	121		On Track	
	50%	6/25/	AJV-	Section	1/2 1/2013	A3V-114	Training Plan	AJV-			
	Design 75%	2012 9/7/	121 AJV-	EA Alternatives Sect	1/25/2013	AJV-114	Complete	121		May Be	
	Design	2012	121	Final Ops Validation	3/22/2013	AJV-121	Flight Checks	AJW-3		Missed	
	90%	10/19/	AJV-	· · ·	3/22/2013	AJV-121	Stakeholder	AJV-		Minord	
	Design	2012	121	EA Affected Enviro Section	4/5/2013	AJV-114	Coordination	121 AJV-		Missed	
	Final Report	11/16/ 2012	AJV- 121	100% Design			Training Complete	AJV- 121		EV44 or	
	Report	2012	121	Complete	4/19/2013	AJV-121	Implementation	AJV-		FY14 or	
				SMS Initiate	5/6/20103	AJV-C	Complete	121		beyond	
				Facilitation SRM Panel	5/20/2013	AJV-C					
				EA Enviro Consequences Sect	7/10/2013	AJV-114					
				SMS draft doc. completed	9/20/2013	AJV-C	RISK	S/NO	TES:	NONE	
				Draft EA	10/23/2013	AJV-114					
				SMS final doc. completed	10/25/2013	AJV-C					
0	-			SMS Final doc. signed	12/6/2013	AJV-C			NIS		
() FA				SMS Process Complete	11/18/2013	AJV-C			I Ve	KIGEN	

AJV-114

AJV-1

2/19/2014

2/19/2014

Complete **Final EA FONSI**

Eval Phase Complete



Atlanta FYs 12 & 13 Milestones



Final EA FONSI

SMS Process

Complete

10/18/2013

12/13/2013

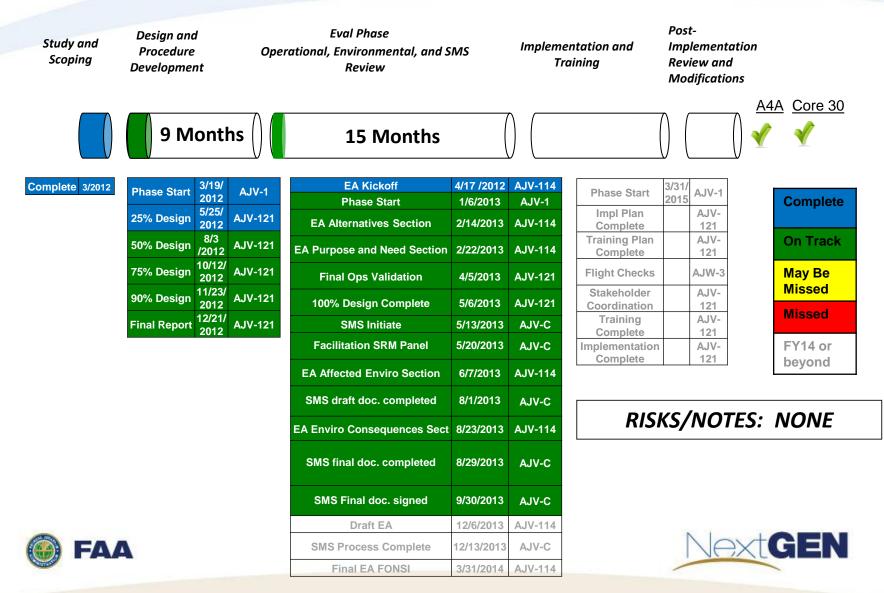
AJV-114

AJV-C

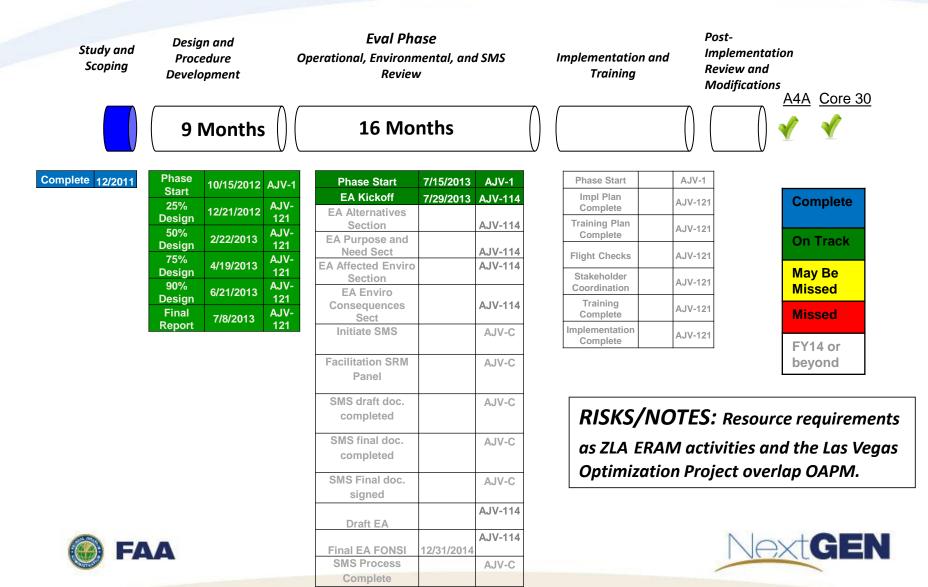


*d***GEN**

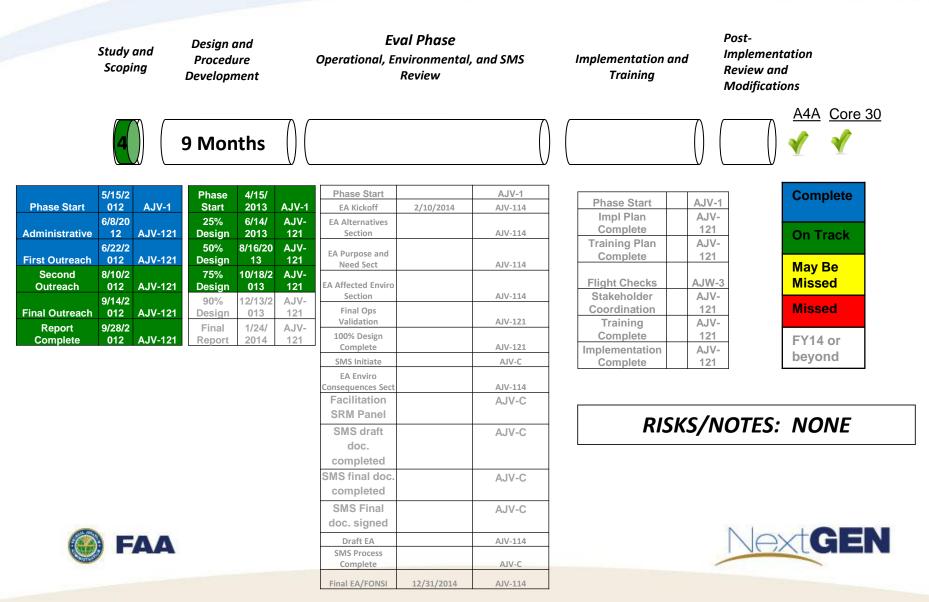
Northern California FYs 12 & 13 Milestones



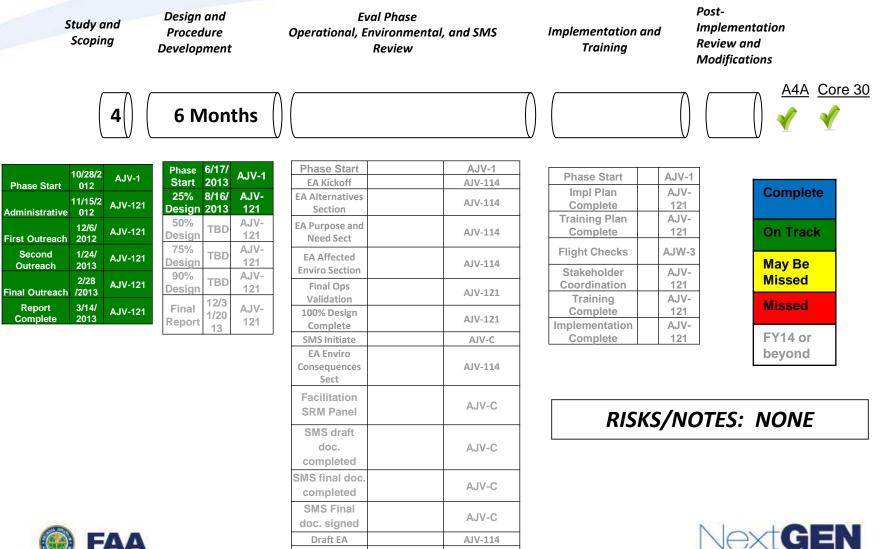
Southern California FYs 12 & 13 Milestones



South & Central Florida FYs 12 & 13 Milestones



Phoenix FYs 12 & 13 Milestones



AJV-114

AJV-C

AJV-114

Draft EA

SMS Process

Complete **Final EA/FONSI**



14

Chicago FYs 12 & 13 Milestones



TBD

TBD

TBD

TBD

Facilitation SRM

Panel

SMS draft doc.

completed

SMS final doc.

completed SMS Final doc.

signed

Draft EA

SMS Process Complete

Final EA/FONSI

AJV-C

AJV-C

AJV-C

AJV-C

AJV-114

AJV-C

AJV-114

RISKS/NOTES: Chicago Airspace Project and O'Hare Modernization Plan are potential impacts



🛞 FAA

Performance-Based Navigation (PBN) Non-OAPM





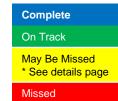
ederal Aviation Administration

extgen

PBN Milestones Summary and Dashboard Status as of Jul 24, 2012

No.	FY 12 Milestones	Completion
1	Portland preliminary designs complete	Jan 2012
2	St. Louis preliminary designs complete	Mar 2012
3	Memphis RNAV SIDs published	Apr 2012
4	Philadelphia RNAV STARs published	May 2012
5	LaGuardia RNAV SIDs published	May 2012
6	Portland RNPs Published	Sep 2012
7	St. Louis RNAV SIDs and RNPs published	Sep 2012
8	Anchorage RNAV SIDs and STAR published	Sep 2012

No.	FY 13 Milestones	Completion
1	Denver STARs and RNPs published	Nov 2012
2	Nashville procedures published	Nov 2012
3	St. Louis STARs Published	Nov 2012
4	Denver SIDs published	Jan 2013
5	Minneapolis STARs and RNPs published	Mar 2013
6	Seattle procedures published	Mar 2013
7	Minneapolis SIDs published	May 2013
8	Portland STARs published	Jun 2013

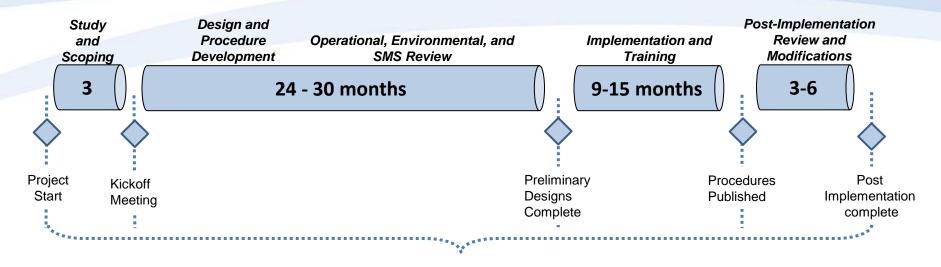


Site	Project Start	Prototype design complete (pencils down)	Environmental Start	Environmental End	Submitted to Flight Procedures Team (FPT)		AeroNav	itted to Products V-3)	Publ	ished
Denver	11/2009	1/2012	1/2010	8/2012	4/2012	6/2012	5/2012	7/2012	11/2012	1/2013
Minneapolis	10/2010	8/2012	4/2012	9/2012	8/2012	10/2012	9/2012	11/2012	3/2013	5/2013
Nashville	7/2010	3/2012	8/2011	8/2012	4/2012		5/2012		11/2012	
Portland	8/2011	3/2012	10/2011	3/2012	3/2012	8/2012	3/2012	9/2012	9/2011 3/2	013 6/2013
St. Louis	4/2008	11/2011	6/2008	7/2012	3/2012	4/2012	3/2012	5/2012	9/2012	11/2012
Seattle	6/2010	12/2011	10/2011	10/2012	8/2	012	9/2	012	3/2	013
Philadelphia	3/2008	12/2010	3/2008	2005	3/2	012	12/2011		5/2012	
LaGuardia	1/2011	4/2011	1/2011	2005	11/2	11/2011		12/2011		012
Anchorage					3/2	3/2012		012	9/2012	





PBN Site Timeline



Study and Scoping: a preliminary look at a PBN project where data is gathered for use in evaluating current operations and to design draft procedures that will be use in the PBN project.

Design and Procedure Development: Development work on prototype procedures is conducted. Procedures usually go through many changes and testing before becoming final drafts.

Operational, Environmental and SMS Review: All necessary operational modeling, safety analyses, and environmental reviews are conducted.

Implementation and Training: This includes all steps required for implementation including facility preparation and procedure development including flight inspection, publishing procedures and executing training.

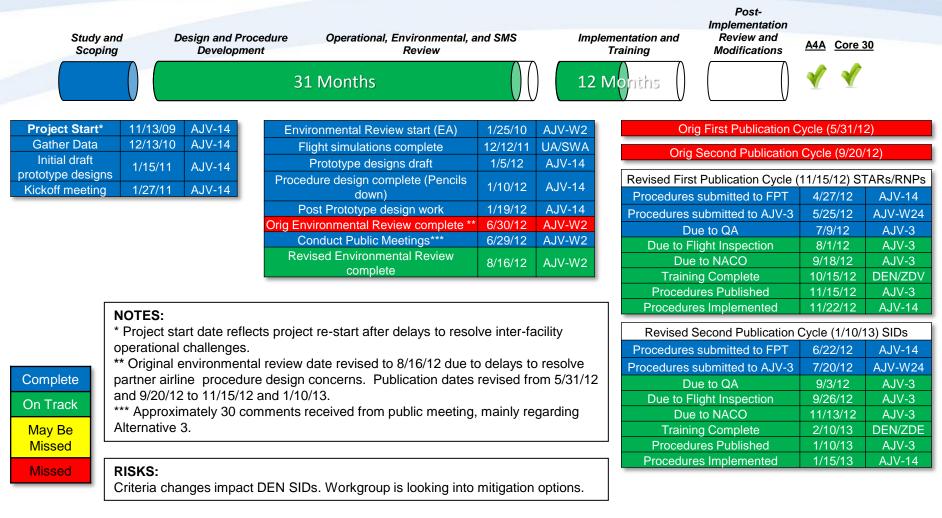
<u>Post Implementation Review and Modifications</u>: Includes a review of the procedures changes to determine if they have delivered desired benefits and/or caused other impacts. Modifications or refinements may be made to better achieve desired benefits or address unforeseen impacts.





Denver Site Progress Status

15 SIDs, 17 STARs, and 12 RNPs





Minneapolis Site Progress Status

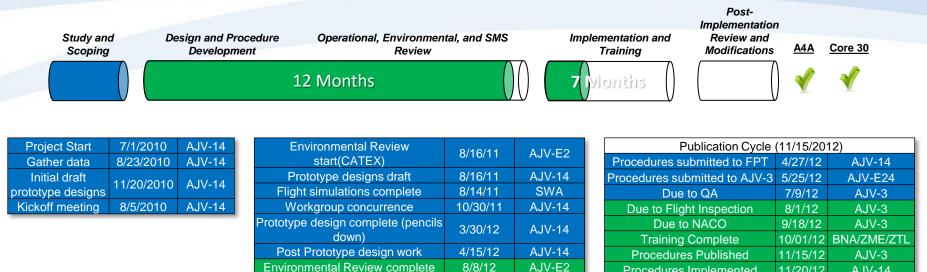
13 SIDs, 6 STARs, 6 RNPs

Study a Scopin		Design and Proce Developmen		l, and SMS	•	nentation and Training	Post- Implementation Review and Modifications	<u>A4A Co</u>	ore 30	
			6 Months		9 M	onths		1		
Project Start	10/30		Environmental Review start	4/25/12	AJV-C2	Orig F	rst Publication Cy	cle (9/20/2	.012)	
Gather Data	10/15	/10 AJV-14	Prototype designs draft	3/29/12	AJV-14	Cha 1	First Publication C	volo (1/10)	2012)	
Initial draft protot	ype 11/1/	(10 AJV-14	Noise Screen Complete*	6/22/12	AJV-14	City. Th	FIIST Publication C		2013)	
designs Kickoff meeting			Flight simulations complete	6/30/12 7/09/12	DAL/ SWA		econd Publication			
			Workgroup concurrence ***	7/15/12	AJV-14		lication Cycle (3/7			
			Prototype design complete (Pencils down)	8/20/12	AJV-14		ubmitted to FPT comitted to AJV-3	8/17/12 9/14/12	AJV-14 AJV-C24	
			Post Prototype design work	9/20/12	AJV-14	Due	to QA	10/29/12	AJV-3	
			Environmental Review complete*	9/30/12	AJV-C2	Due to Flig	ht Inspection	11/21/12	AJV-3	
Г	NOTEO	<u> </u>		2040			NACO	1/8/13	AJV-3	
			rt date was originally set for 09/20/2				Complete	2/15/13	MSP/ZMP	
			evised to 01/10/2013 and 03/7/2013		s Published	3/7/13	AJV-3			
			C) Noise Oversight Committee (NO			Procedures	Implemented	3/15/13	AJV-14	
			d procedures; Lead operator neede		Chg. 2 Second Publication Cycle (5/2/2013) SIDs					
			moved to 03/7/2013 and 05/2/2013		ubmitted to FPT	10/12/12				
Complete		•	d environmental review completion		omitted to AJV-3	11/9/12	AJV-C24			
On Track		s for completing t	he noise screen. Projected environ	mental rev	lew date is		to QA	12/24/12		
OITTACK	9/30/12.		05/40			Due to Flig	ht Inspection	1/16/13	AJV-3	
May Be		IDs published 7/					NACO	3/5/13	AJV-3	
Missed	WWW VVOrk	group concurren	ce delayed due to block altitude crit	teria issue	on SIDS.	Training	Complete	4/2/13	MSP/ZMP	
						Procedure	s Published	5/2/13	AJV-3	
Missed	RISKS :					Procedures	Implemented	5/15/13	AJV-14	
	analys screer - MAC a This ha	is, whereas the F a. Differences in r and the NOC plar	n has hired an environmental contr FAA is using internal resources to c results could lead to project delay to n to host an open house with the pu o impact publication dates should c I.	omplete a o resolve d Iblic later ir	noise ifferences. n the year.					
	FAA						Nex	GE		



Nashville Site Progress Status

12 SIDs, 4 STARs, and 6 RNPs





RISKS: None





11/20/12

AJV-14

Procedures Implemented

Portland OR (PDX) Site Progress Status

3 STARs 6 RNPs

Study and Scoping	Design and Pro Developm					Post- Implementation Review and Modifications	<u>A4A Cor</u>	re 30
					Months		V	
Project Start	8/15/11 AJV-14	Environmental Review start	10/3/11	AJV-W2		ublication Cycle (9	/20/2012) F	
Gather data	8/15/11 AJV-14	Prototype designs draft	1/19/12	AJV-14		ubmitted to FPT	3/2/12	AJV-14
Initial draft prototype	9/23/11 AJV-14	Flight simulations complete	1/29/12	SWA		bmitted to AJV-3	3/30/12	AJV-W24
designs		Workgroup concurrence	3/16/12	AJV-14		to QA	5/14/12	AJV-3
Kickoff meeting	10/3/11 AJV-14	Prototype design complete (pencils down)	3/20/12	AJV-14		ht Inspection NACO***	6/6/12 7/24/12	AJV-3 AJV-3
		Post Prototype design work	3/20/12	AJV-14		Complete	8/20/12	PDX
		Environmental Review complete	3/20/12	AJV-W2		es Published	9/20/12	AJV-3
		Environmental Review complete	0/20/12	100 112		Implemented	9/25/12	AJV-14
					Procedures s Procedures su	Publication Cycle ubmitted to FPT bmitted to AJV-3 to QA	(3/7/2013) 8/17/12 9/14/12 10/29/12	STAR AJV-14 AJV-W24 AJV-3
	NOTES:				Due to Flig	ht Inspection	11/21/12	AJV-3
		cation date for two STARs is being a	Due te	1/8/13	AJV-3			
Complete	, ,				Complete es Published	2/7/13	PDX/ZSI	
Complete		the request of Seattle ARTCC to avoid potential conflicts with the Greener Skies STAR implementation at Seattle.					3/7/13	AJV-3
On Track		ction scheduled to start week of 7/23/	ination	Procedures	Implemented	3/20/13	AJV-14	
	3 1	ubmission to NACO by 7/31/12.	Third Publication Cycle (6/27/2013) STARs					
May Be					Procedures s	ubmitted to FPT	12/7/12	AJV-14
Missed					Procedures su	bmitted to AJV-3	1/4/13	AJV-W24
Missed	RISKS: None					to QA	2/18/13	AJV-3
	L					ht Inspection	3/13/13	AJV-3
						D NACO	5/14/13	AJV-3
						Complete	5/27/13	PDX/ZS
						es Published	6/27/13	AJV-3
					Procedures	Implemented	7/3/13	AJV-14





St. Louis Site Progress Status

13 SIDs 12 STARs 6 RNPs

Study and Scoping	l	Design and Pro Developme		and SMS	•	mentation and Training	Post- Implementation Review and Modifications	A4A Core 30	2
			49 Months**		8 M	lontកទ		V	
Project Start*	4/2008	AJV-14	Environmental Review start	6/30/2008	AJV-C2	First Publica	ation Cycle (9/20/2	2012) SIDs and	d RNPs
Gather data	5/2008	AJV-14	Prototype designs draft	6/30/2011**	AJV-14	Procedures s	ubmitted to FPT	3/2/12	AJV-14
Initial draft prototype	5/2008	A 1) / 4 /	Flight simulations complete	8/31/2011	SWA	Procedures su	Procedures submitted to AJV-3		AJV-C24
designs	5/2006	AJV-14	Workgroup concurrence	Workgroup concurrence 11/30/2011 AJV-14		Due	to QA	5/14/12	AJV-3
Kickoff meeting	6/2008	AJV-14	Prototype design complete (pencils	11/30/2011	AJV-14	Due to Flig	ht Inspection	6/6/12	AJV-3
			down)	11/30/2011	AJV-14	Due to	NACO****	7/24/12	AJV-3
			Post Prototype design work	12/15/2011	AJV-14	Training	Complete	8/20/12	STL/ZKC
			Environmental Review complete	7/2/2012***	AJV-C2	Procedure	es Published	9/20/12	AJV-3
						Procedures	Implemented	9/27/12	AJV-14
						Second P	ublication Cycle (11/15/2012) S [·]	TARs
NOTES: * SID/STAR project started Apr 2008; RNPs added Jul 2009						Procedures s	ubmitted to FPT	4/27/12	AJV-14
				19		Procedures su	bmitted to AJV-3	5/25/12	AJV-C24
		•	ay was incurred due to:			Due	to QA	7/9/12	AJV-3

- An out of date Part 150 study and addition of a new runway resulted in the FAA hiring an environmental contractor for noise analysis.
- Subsequent changes in the lead airline operator and procedure development criteria resulted in procedures being re-developed and simulated.
- New FAA/NATCA labor agreement resulted in delay for new review of designs *** CATEX signed by FAA.

**** Flight inspection scheduled to start 7/29/12. Coordination made for late submission to NACO by 8/10/12.

RISKS:

- Potential risk to completion of flight inspection of the RNAV SIDs and RNP due to construction on runway 12R/30L.
- Staffing constraint on Gateway TRACON to accomplish facility training prior to implementation. Risk will be mitigated by staggering RNAV SID and RNP training.



Complete

On Track

May Be

Missed Missed





Due to Flight Inspection

Due to NACO

Training Complete

Procedures Published

Procedures Implemented

AJV-3

AJV-3

STL/ZKC

AJV-3

AJV-14

8/1/12

9/18/12

10/15/12

11/15/12

11/22/12

Seattle Site Progress Status 4 STARs 12 RNPs (Greener Skies I1) Post-Implementation Study and Design and Procedure Operational, Environmental, and SMS Implementation and Review and Scoping Development Modifications Review Training A4A Core 30 12 Months 7 Months Project Start 6/2010 AJV-14 **Environmental Review start** 10/15/11 AJV-W2 Publication Cycle (3/7/2013) Gather data 7/2010 AJV-14 Prototype designs draft 9/20/11 AJV-14 Procedures submitted to FPT 8/17/12 **AJV-14** ASA Initial draft prototype Flight simulations complete 11/10/11 Procedures submitted to AJV-3 9/14/12 AJV-W24 8/2010 **AJV-14** designs Workgroup concurrence 12/1/11 AJV-14 10/29/12 AJV-3 Due to QA **Kickoff meeting** 9/2010 AJV-14 Prototype design complete (pencils Due to Flight Inspection 11/21/12 AJV-3 12/15/11 AJV-14 down) Due to NACO 1/8/13 AJV-3 Special RNAV STAR/RNP SEA/ZSE **Training Complete** 2/7/13 AR/RVFP submitted to AFS-460 3/7/13 4/20/12 AJV-14 **Procedures Published** AJV-3 and passed **Procedures Implemented** 3/14/13 AJV-14 Flight Check Special RNAV STAR/RNP AR/RVFP approved for 12-06 5/20/12 AFS-400 publication cycle ATC training 5/11/12 SEA/ZSE Flight Trials under 180 day CatX 6/11/12 SEA/ZSE begin

Complete On Track May Be

Missed

Missed

RISKS:

ROD date is an estimate. Draft EA was completed June 22, 2012. Two public workshops will be held in August 2012. Any challenges in completion of the EA or due to public comment could lead to delays to resolve concerns.

8/1/12

Est. 10/2012

Post Prototype design work

Environmental Review complete

AJV-14

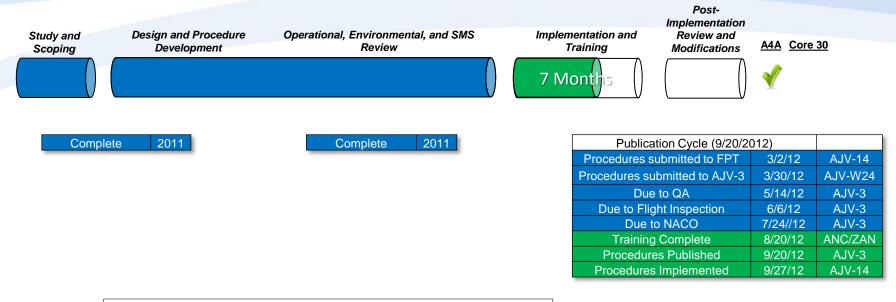
AJV-W2





Anchorage Site Progress Status

2 STARs 1 SID



NOTE: Published 4 revised STARs and 1 SID 2/2012

Complete On Track May Be Missed Missed

RISKS: None





Third Party Vendor





Federal Aviation Administration

extgen

Project Overview

- The FY12 Appropriation includes \$3M dollars for third party development and delivery of two (2) public Required Navigation Performance (RNP-AR) procedures at five (5) FAA-selected mid-size airports (10 total procedures).
- The vendor will design, deploy, and maintain public-use RNP approaches where aircraft flying RNP arrivals would achieve measurable benefit.
- Vendor must prepare all environmental paperwork, up to and including an environmental assessment.

Current Status:

- The FAA announced on 5/10/12 the award of the contract to GE-NAVERUS, ITT-Excelis teammate under the SE2020 SIR 1 contract vehicle (Boeing-Jeppesen was the only other bidder).
- + This has high congressional staff interest.





3rd Party Vendor Milestones Summary and Dashboard Status as of June 30, 2012

No.	FY 12 PLA Milestones (WIP)	Completion	No.	FY 13 Milestone (WIP)	Completion
1	Master Schedule Work Plan	Jun 2012	1		
2	Syracuse initial coordination	Jul 2012	2		
3	Syracuse workgroup kickoff meeting	Sept 2011	3		
4	Syracuse Implementation Plan	Sept 2011			

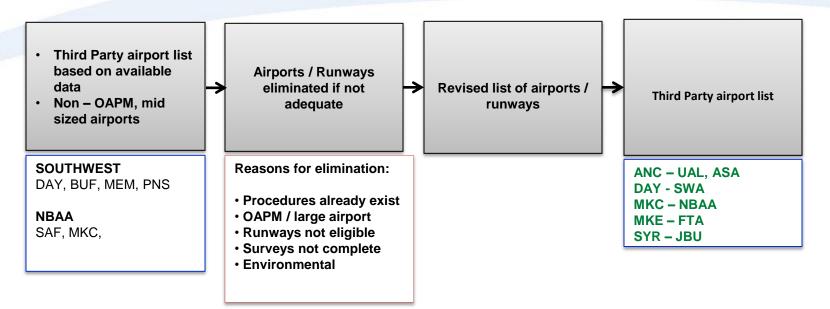


Site	Project Start	Procedure design complete (pencils down)	Environmental Start	Environmental End	Submit Design Procedures to RAPT Team		Submit to Instrument Flight Procedure Team (IFPT)			
Syracuse	7/2012	1/2013	8/2012	2/2014	7/24/2012	8/7/2012				
Milwaukee	9/2012									
Anchorage	1/2013									
Dayton	3/2013									
Kansas	5/2013									





Locations

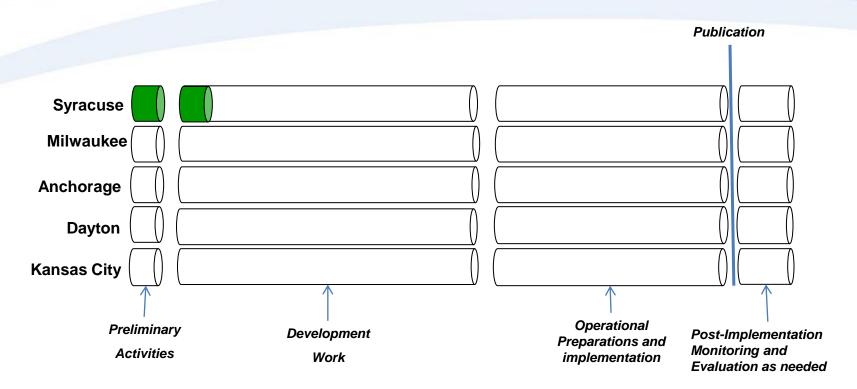


- **SYR** –SYRACUSE HANCOCK INTL AIRPORT, SYRACUSE, NY
- MKE GENERAL MITCHELL INTL AIRPORT, MILWAUKEE, WI
- ANC TED STEVENS ANCHORAGE INTL AIRPORT, ANCHORAGE, AK
- DAY JAMES M COX DAYTON INTL AIRPORT, Dayton, OH
- MKC CHARLES B. WHEELER DOWNTOWN AIRPORT, KANSAS CITY, MO





3rd Party Sites Progress Status



- Contract award notification issued on May 10, 2012
- Contract solidified on May 30, 2012
- Master schedule received on June 25, 2012
- Syracuse Initial Site Visit completed on July 18, 2012





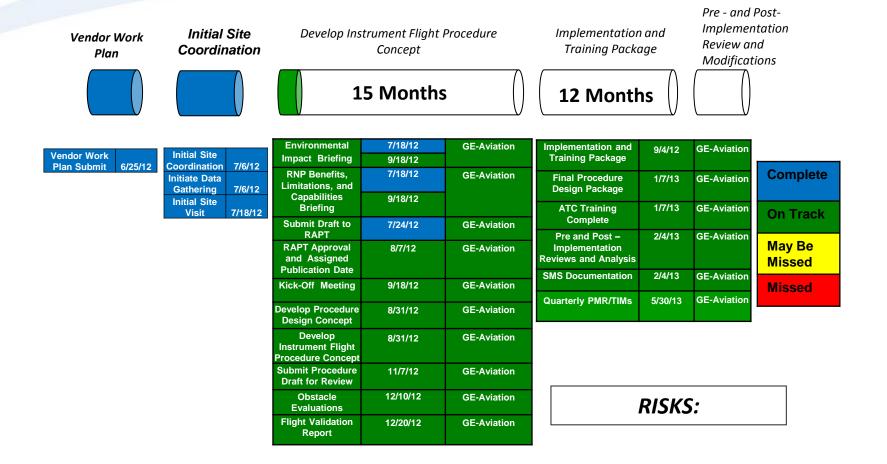


- The contractor must accomplish the following tasks for each of two (2) public Required Navigation Performance (RNP AR) procedures at five (5) FAA-selected sites (10 total procedures) following the design and development process as outlined in AC 90-110 and the package submission process as listed in task 4.
 - Task 1: Develop Implementation Plan
 - + Task 2: Perform Required Initial Coordination
 - Task 3: Facilitate a Kick-Off Meeting with the Working Group
 - Task 4: Develop Instrument Flight Procedure Concept
 - Task 5: Training Package Support
 - + Task 6: Pre- and Post-Implementation Support
 - + Task 7: Program Management Activities
 - + Note: Project Work Plan with supporting dates was submitted on June 25, 2012.





Syracuse Hancock Int'l Airport FYs 12 and 13 Milestones







Milwaukee General Mitchell Int'l Airport FYs 12 and 13 Milestones

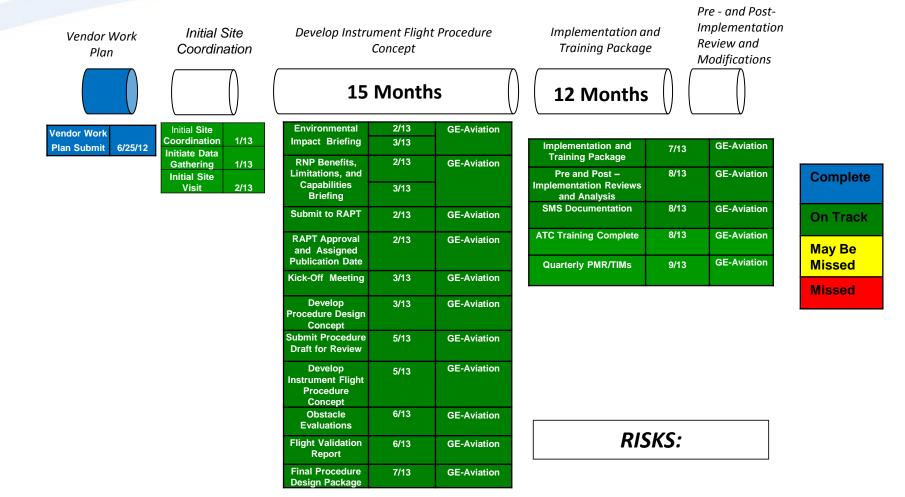
Vendor Work Plan	Initial Site Coordination	Develop Instrument Flight Procedure Concept			Implementation an Training Package		Implementation Review and Modifications	n
		15	Months	s ()	12 Months			
Vendor Work	Initial Site	Kick-Off Meeting	11/12	GE-Aviation	Implementation and Training Package	1/13	GE-Aviation	Complete
Plan Submit 6/25/12	Coordination 9/12 Initiate Data	Environmental Impact Briefing	9/12 11/12	GE-Aviation	Pre and Post – Implementation	4/13	GE-Aviation	
	Gathering 9/12 Initial Site	RNP Benefits, Limitations, and	9/12	GE-Aviation	Reviews and Analysis			On Track
	Visit 9/12	Capabilities Briefing	11/12		SMS Documentation	4/13	GE-Aviation	May Be
		Submit Draft to RAPT	9/12	GE-Aviation	ATC Training Complete	4/13	GE-Aviation	Missed
		RAPT Approval and Assigned Publication Date	10/12	GE-Aviation	Quarterly PMR/TIMs	6/13	GE-Aviation	Missed
		Develop Procedure Design Concept	11/12	GE-Aviation				
		Develop Instrument Flight Procedure Concept	11/12	GE-Aviation	RISKS: Adjoining Chicago Initiatives	,	eland and adjoining Air	
		Submit Procedure Draft for Review	2/13	GE-Aviation	Traffic facilities c			
		Obstacle Evaluations	3/13	GE-Aviation	site coordination e with coordination a		· /	
		Flight Validation Report	3/13	GE-Aviation	Mitigation/Comm	ent:		
		Final Procedure Design Package	4/13	GE-Aviation				1





Pre - and Post-

Ted Stevens Anchorage Airport FYs 12 and 13 Milestones







James M Cox Dayton Airport FYs 12 and 13 Milestones

Vendor Work Plan	Initial Site Coordination	Develop Instrument Flight Procedure Concept			Implementation Training Packa		Implementation Review and Modifications		
		15	Month	s ()	12 Month	ns ()			
Vendor Work	Initial Site Coordination 9/12	Initial Site Coordination	3/13	GE-Aviation	Implementation and Training Package	9/13	GE-Aviation		
Plan Submit 6/25/12	Initiate Data	Initial Site Visit	3/13	GE-Aviation	ATC Training Complete	9/13	GE-Aviation	O and a last a	
	Gathering 9/12 Initial Site	Kick-Off Meeting	4/13	GE-Aviation	Pre and Post –	10/13	GE-Aviation	Complete	
	Visit 9/12	Initiate Data Gathering	3/13	GE-Aviation	Implementation Reviews and Analysis			On Track	
		Environmental	3/13	GE-Aviation	SMS Documentation	10/13	GE-Aviation		
		Impact Briefing	4/13		Quarterly PMR/TIMs	11/13	GE-Aviation	May Be	
		RNP Benefits, Limitations, and	3/13	GE-Aviation				Missed	
		Capabilities Briefing	4/13					Missed	
		Develop Procedure Design Concept	4/13	GE-Aviation					
		Submit to RAPT	4/13	GE-Aviation					
		Develop Instrument Flight Procedure Concept	4/13	GE-Aviation					
		RAPT Approval and Assigned Publication Date	5/13	GE-Aviation					
		Submit Procedure Draft for Review	7/13	GE-Aviation					
		Obstacle Evaluations	8/13	GE-Aviation		RISK	<u>، د، </u>		
		Flight Validation Report	8/13	GE-Aviation		NIJN			
		Final Procedure Design Package	9/13	GE-Aviation			Ne	<i>t</i>GEN	

Pre - and Post-

Charles B Wheeler Downtown Kansas City Airport FYs 12 and 13 Milestones

Vendor Work Plan	Initial Site Coordination	Develop Instrument Flight Procedure Concept			Implementation Training Packa		Implementation Review and Modifications		
		1!	5 Months	5 ()	12 Month	S			
Vendor Work	Initial Site Coordination 9/12 Initiate Data	Initial Site Coordination	5/13	GE-Aviation	Implementation and Training Package	12/13	GE-Aviation		
Plan Submit 6/25/12	Gathering 9/12	Initial Site Visit	5/13	GE-Aviation	ATC Training	12/13	GE-Aviation	Complete	
	Initial Site Visit 9/12	Initiate Data	5/13	GE-Aviation	Complete			Complete	
	VISIL 5/12	Gathering Environmental Impact Briefing	5/13 6/13	GE-Aviation	Pre and Post – Implementation Reviews and Analysis	1/14	GE-Aviation	On Track	
		RNP Benefits, Limitations, and	5/13	GE-Aviation	SMS Documentation	1/14	GE-Aviation	May Be	
		Capabilities Briefing	6/13		Quarterly PMR/TIMs	1/14	GE-Aviation	Missed	
		Submit to RAPT	5/13	GE-Aviation				Missed	
		Kick-Off Meeting	6/13	GE-Aviation					
		RAPT Approval and Assigned Publication Date	6/13	GE-Aviation					
		Develop Instrument Flight Procedure Concept	6/13	GE-Aviation					
		Develop Procedure Design Concept	6/13	GE-Aviation	RI	SKS:			
		Submit Procedure Draft for Review	9/13	GE-Aviation				1	
		Obstacle Evaluations	11/13	GE-Aviation					
-		Flight Validation Report	11/13	GE-Aviation			N		
🕑 FAA		Final Procedure Design Package	12/13	GE-Aviation			Ne	<i>A</i>TGEN	

Pre - and Post-