

# Approach For Developing a PAL Within Extreme Budget and Schedule Constraints

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NAVAIR

# Topics

- What is a PAL?
- Project Scope
- Project Constraints
- Management Approach #1 - Reuse
- Management Approach #2 - Focus
- Project Outcome
- Lessons Learned
- Questions?

# What is a PAL?

- ❑ NAVAIR Process Asset Library (PAL) = collection of process assets with potential to be reused across NAVAIR
- ❑ Process assets can be anything that supports execution of a process (a template, a checklist, training, an example, a process description, etc)
- ❑ NAVAIR determined that reuse of assets could save teams significant time during both process development and project work

# Project Scope-1

The scope of this effort was to:

- Design and implement a PAL with the following basic features:
  - Browse / Search
  - Download
  - Submit and load new assets
  - Share information on process issues
- Define the processes for interacting with and administering the PAL

# Project Scope-2

The scope of this effort (continued):

- Load and index an initial set of process assets
- Develop training
- Conduct a pilot and collect feedback
- Incorporate pilot feedback into the PAL
- Roll-out PAL to a wider audience

# Project Constraints

The project had the following constraints:

- Timeframe: 12 months
- Team: 5 part-time members located at 4 sites
- Effort: ~1200 effort hours
- Technical: No programming – implement the requirements using functionality of existing tool

# Other Wrenches

We had a few other wrenches thrown in:

- Funding was delayed 3 months, but completion date was fixed
- Labor rates increased after funding request submitted, resulting in fewer hours available than originally planned
- Formal Design Review added without funding
- Multiple on-line collaboration and teleconference tool changes mandated during project

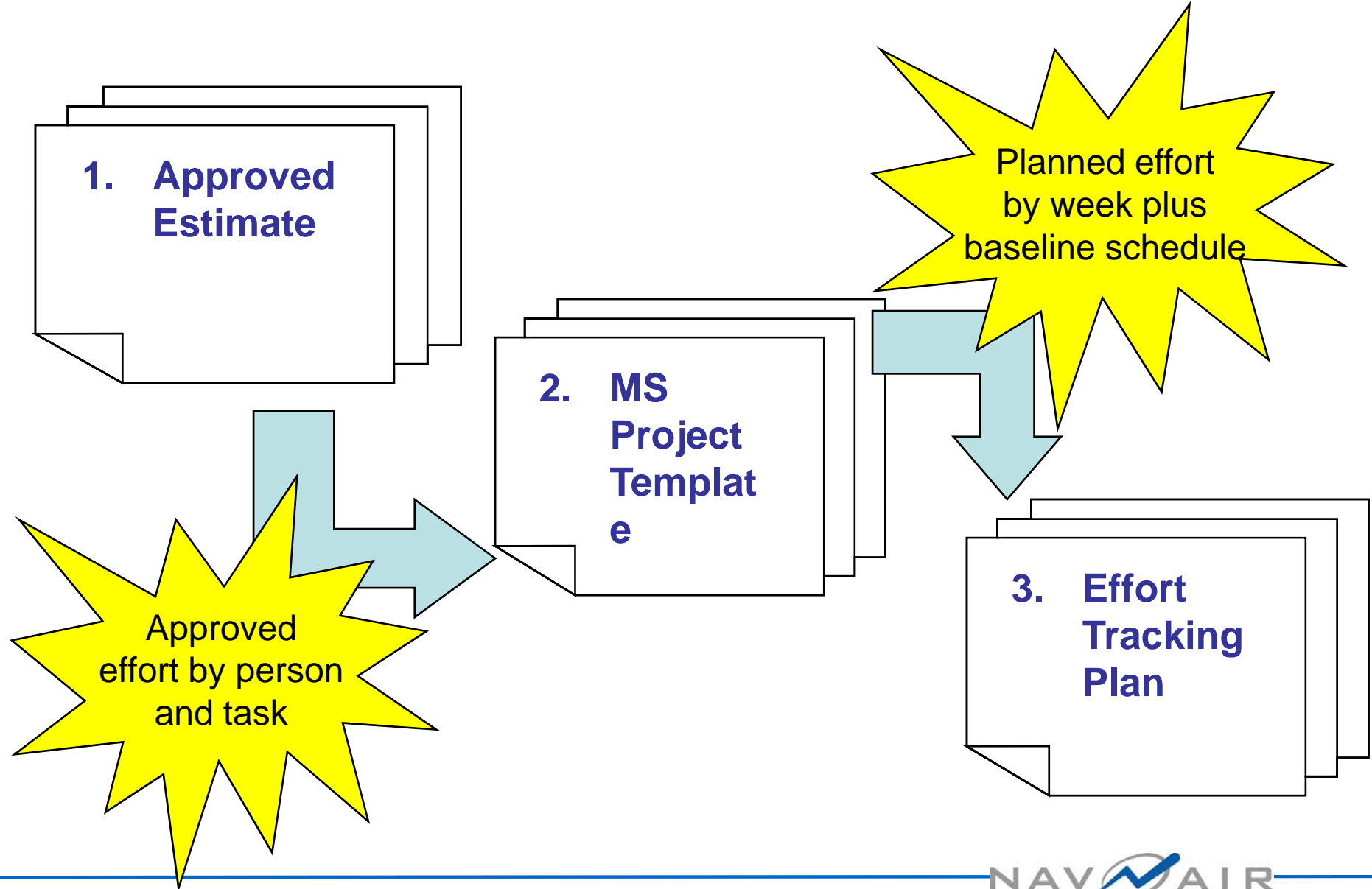
# Management Approach #1 - Reuse

Rather than abandon traditional project management techniques, we **reused** available assets to save effort:

- Schedule Template
- Effort Tracking Tool
- Status Reporting Template
- Meeting Log Template



# Schedule & Effort- Establish Plan



# Effort Tracking Plan

	Summary	% of Planned Effort (Cumulative)	Weekly Plan	Weekly Totals	FY09 SOW	FY09 Stakeholder Plan	FY09 Measurement Plan	Pilot Brief-out	Include pilot feedback	Roll out PAL to SPI CoP	Submission Process	Problem Resolution Process	Change Control Process	Artifact Review/Upload Process	Design Doc Updates	Plan FY09 Collection	Conduct FY09 Co	Load FY09 Co	FY09 Enhanc	Collect Asset Metadata	Load Assets	Answer User Que
	Allocation			832	30	9	9	20	28	30	9	9	9	9	20	24	24	72	50	45	25	48
#	YTD totals- > Week ending		832																			
3	18-Oct-08		19																			
4	25-Oct-08		19																			
5	01-Nov-08		21																			
6	08-Nov-08		21																			
7	15-Nov-08		22																			
8	22-Nov-08		15																			
9	29-Nov-08		15																			
10	06-Dec-08		18																			
11	13-Dec-08		22																			
12	20-Dec-08		20																			
13	27-Dec-08		19																			
14	03-Jan-09		11																			
15	10-Jan-09		13																			
16	17-Jan-09		13																			
17	24-Jan-09		11																			
18	31-Jan-09		13																			
19	07-Feb-09		14																			
20	14-Feb-09		13																			
21	21-Feb-09		10																			

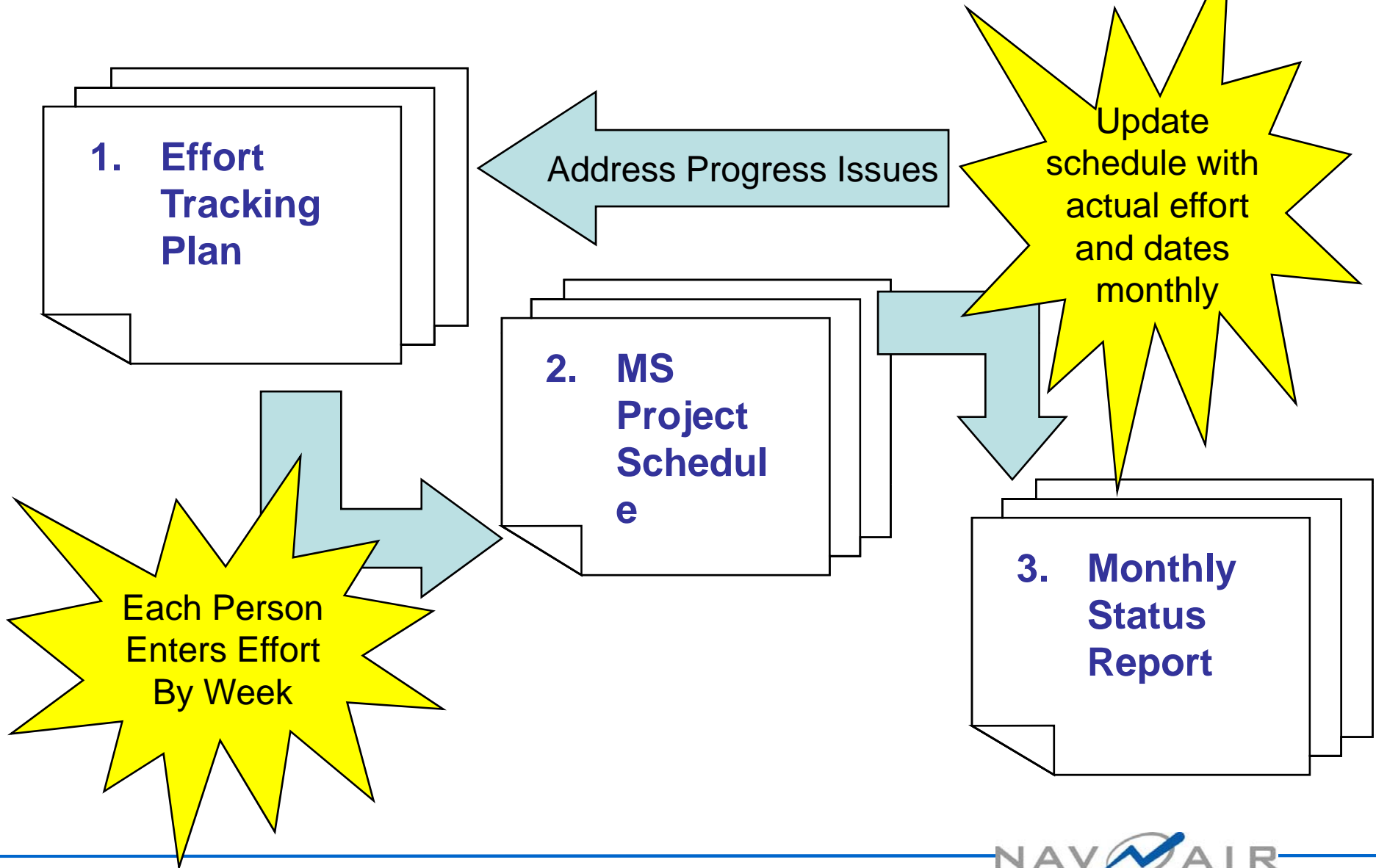
Each task in its own column

Total planned effort for each task

Total planned effort for each week



# Schedule & Effort- Track Progress



# Effort Tracking Tool-Individual-1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2				<i>Engineering (paid)</i>																							
3		Susan	weekly Totals	<i>Prioritize Use Cases</i>	<i>Select top n Use Cases</i>	<i>MyNAVAIR functionality</i>	<i>Stakeholder Plan</i>	<i>Measurement Plan</i>	<i>PAL Architecture</i>	<i>PAL Taxonomy</i>	<i>PAL Metadata</i>	<i>Versioning and Naming</i>	<i>Implement PAL Structure</i>	<i>PAL Submission Process</i>	<i>Prob Resolution Process</i>	<i>Change Control Process</i>	<i>Artifact Review Process</i>	<i>System Admin Process</i>	<i>Asset collection process</i>	<i>Asset Loading Process</i>	<i>Navigation Method</i>	<i>Test of Implementation</i>	<i>Create training</i>	<i>Recruit Pilot Participants</i>	<i>Train Pilot Participants</i>	<i>Monitor PAL use</i>	<i>Support Pilot</i>
4		Allocation	979	10	10	60	37	37	20	20	37	37	28	28	28	28	28	28	45	9	54	10	48	4	11	9	36
5	#	YTD totals-> Week ending	229.00	1.8	2.5	14	6.3	9.1	10	2.5	6.8	2.5	4	5.9	7.8	2.8	2.7	0.8		4.4	4.7	4.9	13			3.9	6.5
6	1	06-Oct-07	1.8	1.8																							
7	2	13-Oct-07	2.3		2.3																						
8	3	20-Oct-07	0.9																								
9	4	27-Oct-07	1.8		0.2																						
10	5	03-Nov-07	1.9																								
11	6	10-Nov-07	2.6				0.7																				
12	7	17-Nov-07	1.9																								
13	8	24-Nov-07	1.3																								
14	9	01-Dec-07	6.1				2.8	0.3																			
15	10	08-Dec-07	1.5					0.2																			
16	11	15-Dec-07	11.3			6	1	2																			
17	12	22-Dec-07	11.9			2	1.3	3.5	2.4																		
18	13	29-Dec-07	4.7			1			2	0																	
19	14	05-Jan-08	9.7			1	0.4	2.8		1	1																
20	15	12-Jan-08	0.7					0.3																			
21	16	19-Jan-08	1							0.5																	

Each person has a tab for entering data



# Effort Tracking Tool - Rollup

	A	B	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1																					
2																					
3		Summary	% of Planned Effort (Cumulative)	weekly plan	weekly Totals	Prioritize Use Cases	Select top n Use Cases	MyNAVAIR functionality	Stakeholder Plan	Measurement Plan	PAL Architecture	PAL Taxonomy	PAL Metadata	Versioning and Naming	Implement	Subm	Pre	Chang	Artifac	System	Asset Co
4		Allocation			979	10	10	60	37	37	20	20	37	37	2	28	28	28	28	28	45
5	#	YTD totals->		979	913	11	14	58	37	48	26	8.1	24	13	25	38	15	8.5	9.6	11	5
5		Week ending																			
39	34	24-May-08	59%	40	24.9			1		1.5				2.5						1	
40	35	31-May-08	61%	20	24.4			2		1.6		1		2						0.5	
41	36	07-Jun-08	65%	11	35.2			3		2				2						1	
42	37	14-Jun-08	67%	5	13.9			1.5													
43	38	21-Jun-08	67%	5	8.6			1		0.4				0.9		0.3					
44	39	28-Jun-08	67%	14	10			3				0.5	0.5	0.5	1.5				0.5		
45	40	05-Jul-08	69%	21	29.9			7.5		1.1	0.1	1.9	1	3.5	5.3	0.2		0.4	0.5		
		12-Jul-08	71%	18	24.1			2				0.4	0.4		2.9	3.6	2.5	1.9	0.3	0.5	
		19-Jul-08	73%	13	23.8			4							3.8	3.8	2.5	1.2	2.5	1	
		26-Jul-08	75%	8	23.6										2	3.6	2	2.6	2	1.5	
		02-Aug-08	77%	10	26.4									1.2	0.5	3	3.4	1.5	3	1	1
		09-Aug-08	80%	21				1							1.5	3				1	
		16-Aug-08	79%	27	16.8											0.5					
		23-Aug-08	80%	27	24.2											0.8					1
		30-Aug-08	82%	17	33.2																
		06-Sep-08	82%	23	18.4																

Actual effort versus plan by task

Hours roll up to Summary tab

Cumulative effort versus plan



# Status Reporting-1

We reused a one-page PowerPoint status report template that had four quadrants:

- Current month's activities
- Next month's planned activities
- Schedule snapshot with CPI/SPI\*
- Issues/Concerns/Risks

\* Cost Performance Index/ Schedule Performance Index

# Status Reporting-2

Monthly Status Report Template DD MMM YYYY

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## Project Highlights

Include highlights since last report

## Next Steps

Near term next steps

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## Schedule (as of DD MM YYYY)

Snapshot of schedule or major milestone dates

## Issues / Concerns / Risks

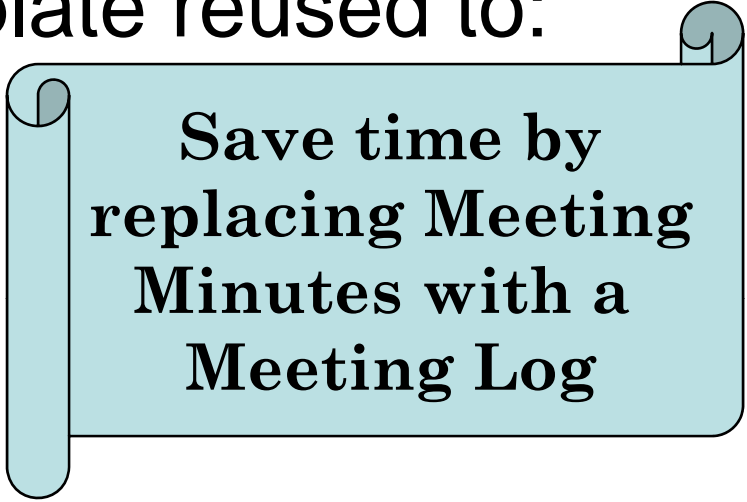
Include any issues, concerns or risks



# Meeting Log-1

Existing meeting log template reused to:

- Record attendance
- Track action items
- Record decisions



Save time by  
replacing Meeting  
Minutes with a  
Meeting Log

We stored the meeting log in a shared location so all team members could access it, even if they couldn't attend every meeting.

# Meeting Log-2

	A	C	D	E	F	G	H	I	J	K
1	NPWG Meeting Summary									
2										
3	<b>Meeting Attendees</b>	<b>Attendance %</b>	<b>Meeting Type</b>	Off-Cycle	Regular	Regular	Off-Cycle	Regular	Regular	Regular
4			<b>Date</b>	10/02/08	10/16/08	10/30/08	11/17/08	12/04/08	12/18/08	01/08/09
5			<b>Location</b>	Telecon	Telecon	Telecon	Telecon	Telecon	Telecon	Telecon
6			<b>Start Time</b>	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM
7			<b>End Time</b>	11:12 AM	11:12 AM	11:12 AM	11:15 AM	11:30 AM	11:54 AM	11:20 AM
8			<b>Time Zone</b>	PDT	PDT	PDT	PDT	PDT	PDT	PDT
9			<b>Hours</b>	1.20	1.20	1.20	1.25	1.50	1.90	1.33
10	Name1	30%			Y	Y		Y		
11	Name2	80%			Y		Y	Y	Y	Y
12	Name3	100%		Y	Y	Y	Y	Y	Y	Y
13	Name4	10%			Y					
14	Name5	80%		Y	Y	Y	Y	Y		Y
15	Name6	100%		Y	Y	Y	Y	Y	Y	Y
16	Name7	60%		Y	Y	Y				Y
17	Name8	80%			Y	Y	Y	Y	Y	
18	Name9	80%		Y	Y	Y	Y		Y	Y
19	Name10	70%			Y			Y	Y	Y
20	Name11	30%			Y		Y			Y
21										

Attendance Record / Action Items / Decision / Stakeholder Involvement / Issues and Risks / Parking Lot

# Management Approach #2 - Focus

On a small project, we had to constantly **focus** on what was essential:

- Biweekly, sometimes weekly meetings
- Stakeholder Plan
- Document Revision Convention
- Prioritized Feature List
- What value does it add?

# Status Meetings

- ❑ Meeting agendas were sent as a bulleted list via e-mail with each Outlook meeting notice (no need for separate agenda doc)
- ❑ Sometimes debating topics via e-mail took too much elapsed time, meetings allowed us to make decisions more quickly
- ❑ Weekly or biweekly depending on planned effort

# Stakeholder Plan

Rather than develop a complete stakeholder matrix up front, we developed involvement guidelines for three types of outputs:

- Outputs that were for team use only
- Outputs requiring allocation of NAVAIR resources
- Outputs for use across NAVAIR

When a new output was started, we added it to the stakeholder matrix according to the guidelines above

# Document Revision Conventions-1

We reused a simple file naming convention to keep track of document revisions:

- $VxDy$  = draft  $y$  of version  $x$ 
  - $y$  starts at 1 and increases until approved, then the draft designation “Dy” is dropped
  - $x$  starts at 1 and increases when a new version to an approved document is started.
- For example, V1D1, then V1D2, then V1 (approved), next draft is V2D1

# Document Revision Conventions-2

Every deliverable contains a change history table:

- While in draft, a summary of the changes for each draft is included as a row in the change history table
- Once approved, the draft change history rows are collapsed into one row

# Prioritized Feature List

We prioritized our feature list at the beginning of the year, so we could

- Implement most important features first
- Ensure we would still have a functioning system if we ran out of time (or \$\$)
- Avoid spending time on “fun” features that weren’t critical to the first release



# Outcome

We piloted all major functionality before the end of the year within our budget:

- Browse, Search, Download, Submit
- Discussions Threads and Announcements

The incorporation of pilot feedback and rolling out the PAL to a wider audience moved out into the next year.

# Lessons Learned

- ❑ Small projects require more communication not less!
- ❑ Focus on essential functionality to keep scope in check
- ❑ We would not have finished on time, if we didn't reuse the assets available to us
- ❑ Unplanned tasks happen, you need some reserve



# Summary

Successfully managing  
this small project with significant  
constraints came down to  
**REUSING** a few simple tools  
and maintaining **FOCUS**

**Questions?**