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# AUVSI Mission Statement

The mission of AUVSI is to promote and support the unmanned systems community through communication, education and leadership.

**1972 – 2002: Advancing Unmanned Systems for 30 Years**

## Report Documentation Page

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# What's the Difference?

- *Non-profits* exist to support our respective industries. Proceeds from our meetings are re-invested into supporting our industry through additional educational programs, subsidized events, industry support groups (ISGs), scholarships, etc.
- *For-profits* exist to make money for the owners and/or benefactors.

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# Unprecedented Growth for UAVs (and AUVSI)

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**“promote and support... through  
education and leadership.”**

- AUVSI represents more than **2500** UAV proponents, users and manufacturers (vastly more than any other single organization)
  - We bring the broadest, most complete industry perspective to this challenge
  - **We believe that the rules must allow *all* classes of UAVs access to the NAS or large portions of the industry will be catastrophically affected**
  - We are concerned that some current efforts are only considering individual classes/types of UAVs
- 1972 – 2002: Advancing Unmanned Systems for 30 Years**



# Unprecedented Growth for UAVs (and AUAVSI)

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- Membership at all-time highs
  - 2,100+ at the end of 2001
- Successful UAV Demo at Webster Field led to record-breaking attendance at AUAVSI symposium
- 1,800 attendees at Unmanned Systems 2001 was 33% greater than previous record
- Partnership with EURO UVS!

**UAVs Are Way Cool**

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# What It's All About

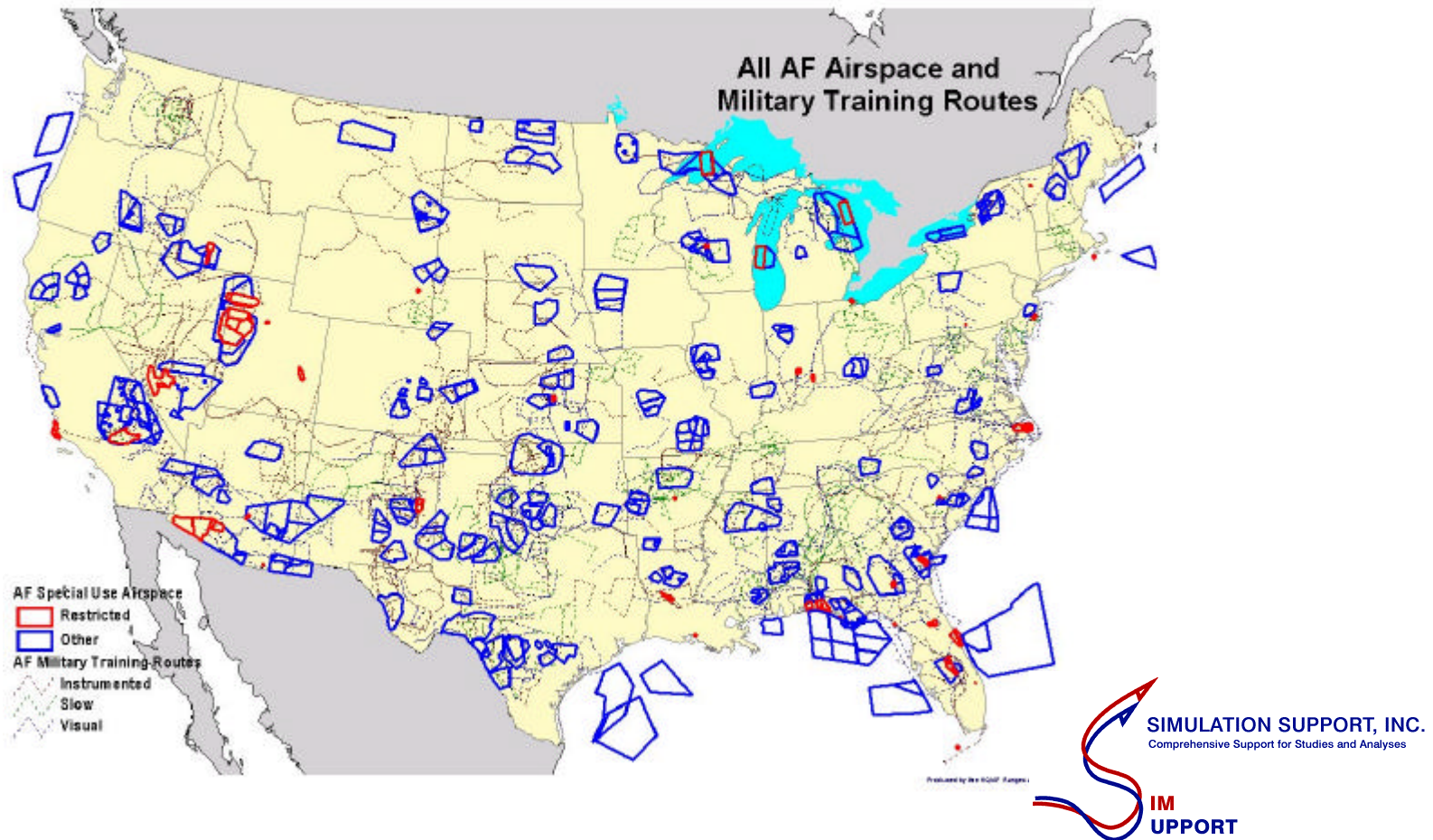
---airspace...access to--

AUAVSI GOAL: unite the military &  
civil UAV communities with a  
common purpose

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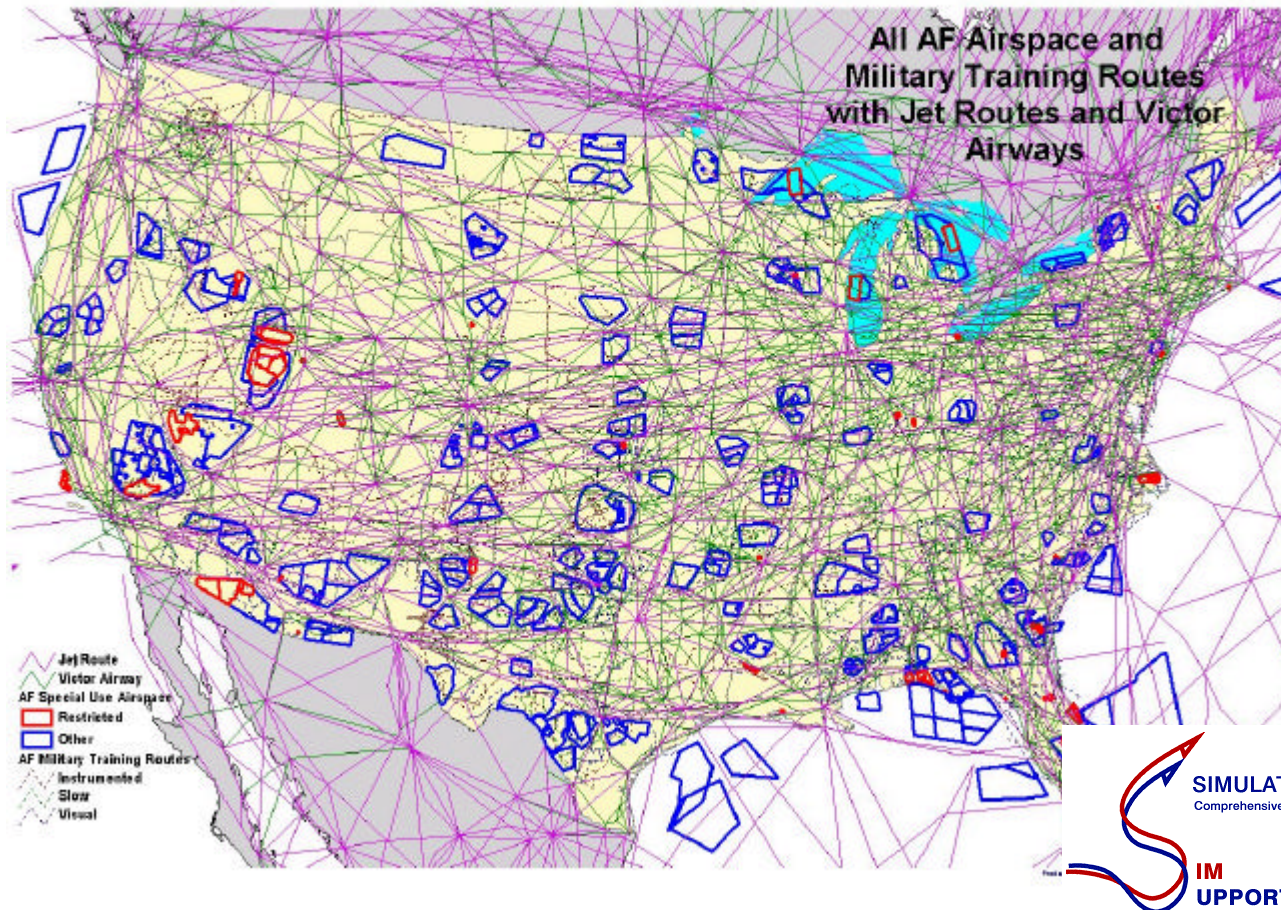
# Here is where UAVs fly today



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Here is where we want to fly tomorrow!



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# Shadow 200 TUAV Fielding Schedule

**BY '04-- 22 Systems means  
66 aircraft at 4 Army Posts**

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Systems Fielded Per Year
01		1 T			1								2
02			1 Tng				Tng Base		1* 3 Bde 2 ID (IBCT)		1* 4ID (M)	1* Bde 25 ID (IBCT)	6
03					1 Tng Base			1 CAV	1 CAV		1 ID	1 ID	5
04		1 IBCT3 (172 SIB)		1 ABN	1 ABN	1 ACR	1 ACR	1 AD	1 ID (M)	1 ID (M)	1 AA	1 MNT	10
05	1 25 ID	1 ACR	1 CAV	1 ABN	1 ACR	1 ACR	1 ID (M)	1 MTN	1 AD	1 AD	1 AA	1 AA	12
06	1 ID (M)	1 ID (M)	1 ID (M)	1 ID (M)	1 ID			1 56 <sup>th</sup> Bde			1 RC		7
07		1 RC		1 RC	1 RC	1 RC	1 RC		1 RC	1 RC		1 RC	8
08		1 RC		1 RC		1 RC		1 RC	1 RC		1 RC	1 RC	7

\* 1st System ("TART" - PM's) will be transferred to RC in FY09 timeframe

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20 February 2002

FY01 LRIP	FY02 LRIP	FY03 Prod I	FY04 Prod II
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## Vision

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Harness the power of the UAV Industry and its associations towards addressing all the issues needed for UAVs to access the NAS

*.....file and fly in a day*

## Goals

Agree on the need for *Consensual Views*

Agree we need to Consolidate and Orchestrate  
and Speak with ONE VOICE

Agree on the Framework for a UAV Alliance  
(UAV-A)

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# Objectives

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Define the UAV Alliance Framework  
Agree on an approach and scope of work  
Evaluate the EURO-UVS UCARE Program for its content

## Strategy

Leverage ongoing efforts-  
Keep DOD Out in Front  
Does the UCARE Program Outline the Scope

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# **We Need a Way to Get There- Together**

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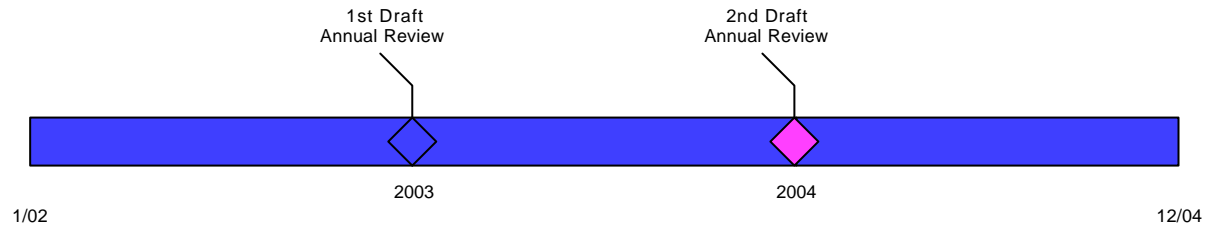
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**A Comprehensive Roadmap  
That Identifies all the Questions  
and provides the Recommendations  
relative to the Introduction of Civil,  
Commercial, and Military UAVs  
into Civil Managed Airspace**

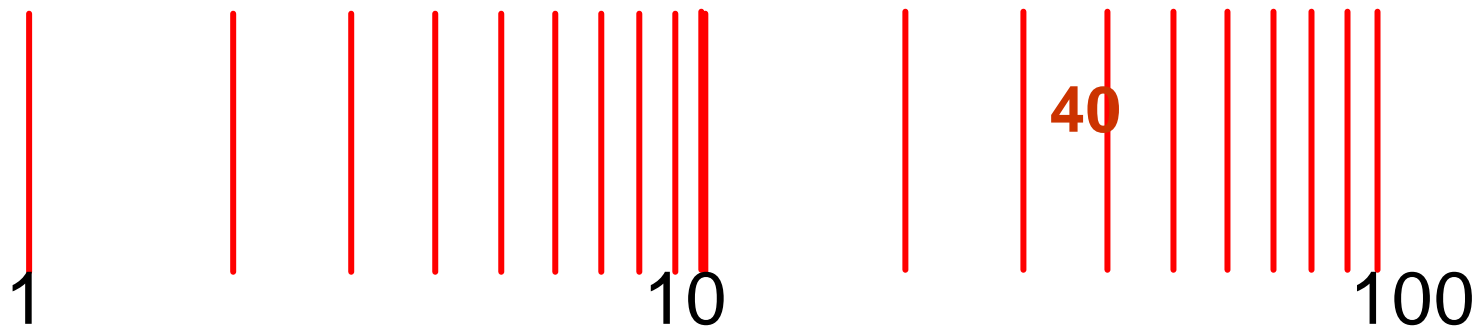
**Roadmaps provide the details for a Notice  
for Proposed Rulemaking (NPRM)**



# Time on the Horizon



A 3yr Plan— may tend to be short sighted

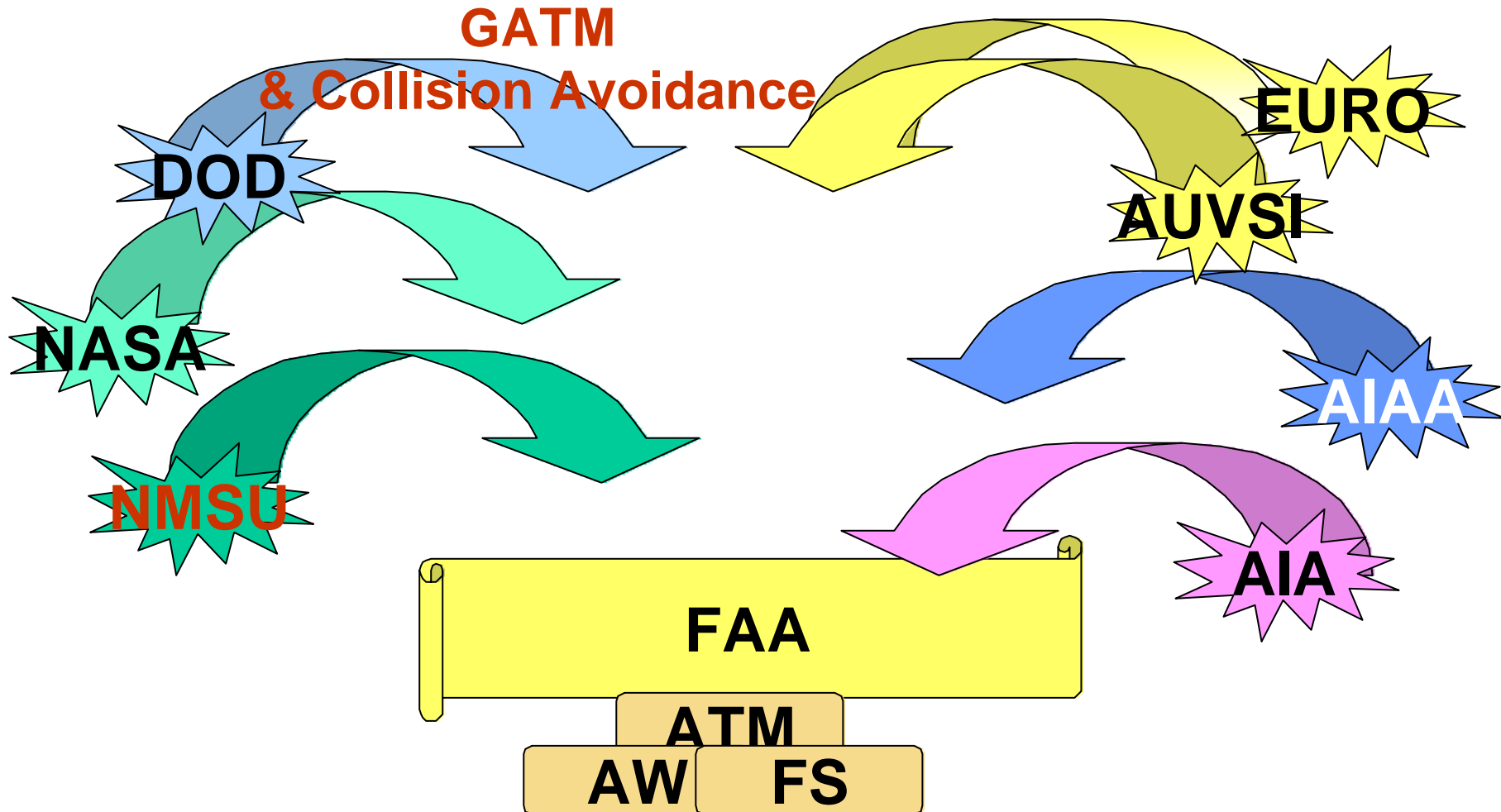


But we must also be visionary

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# Too Many Ball Players Today!



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# New Mexico State University (NMSU TAAC)

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- **Physical Science Laboratory**
- **Technical Analysis and Applications Center (TAAC)**
  - Established in 2000 to accomplish the safe integration of UAVs in the National Airspace System to allow routine flights with numerous applications.
  - Enhance the utility of UAVs and maintain U.S. industry UAV dominance. TAAC is a division of the Physical Science Laboratory (PSL), located at New Mexico State University (NMSU).
  - Promoting UAV Operations and Safe Integration into the National Airspace System
- Has a 3 hr. FAA Regulatory Short Course

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# AIA Flight Operational Test Group (FOTG)

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- AIA/Engineering Management Counsel
  - Review Rules for UAV Contractors under government contractors for flight testing UAV
- In between UAV Contractors, the DCMA, and the Govt/FAA

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# AIAA

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- UAV Systems, Technologies and Operations Conference & Workshop
  - Enabling Technologies
  - Emerging Operational capabilities
- Workshop Scope
  - Key integration issues for UAVs
  - Sense/Detect and Avoid Technologies

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# How Much Can the Industry Take?

<i>UAVs in the National Air Space</i>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DOD Meeting		■			■					■		
NASA Meetings				■				■				
AIA FOTG Meeting		■			■				■		■	
AIAA Meetings						■				■		
AUVSI Meetings		■					■					
NMSU Meeting										■		

**No Actual Progress**

**Too Many Meetings**

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# So What's the Problem?

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- Everyone has an opinion?
- Not all opinions are heard?
- Who speaks to the FAA for the UAV Industry?
- And How?
- Having FAA attend your meeting does not mean the FAA agrees, concurs, or approves.

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# Consensual Views

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- -that is –***‘consensual, one formed by consent’***.
- **‘Consent’ means to agree to a proposed action, or an agreement in a course of action.**



# FAA Realities

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**We can't speak for them but we make some assumptions:**

- FAA does not have sufficient resources to respond to every industry request, every association request, every DoD Service request, or every user on a 1 on 1 situation.
- Current demand for Certificates of Authorization (COA) is manageable!!
- DoD demands on the FAA are duplicative: Global Hawk, Predator etc. FAA can handle them and only Require ATM attention.
- Other Lines of Business are laissez faire as DoD Service Self Certifies

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# There is Precedent

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- FAA prefers to address an industry through an 'association': NBAA, AOPA, etc.
- Air Traffic has at least recognized that FAA must address the needs of an emerging demand on the NAS.
- 10 yrs for an IFR rotary wing infrastructure
- \$80M of Tilt-rotors sold with no TR infrastructure in place?
- If we start now-the need should meet the reality

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# Associations Are at Work

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- Organize and focus on the common goal for the industry
- Divide and target respective lines of business
- Pool resources and the leverage industry strengths
- Avoid any perception of competing

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# Ideas for Consideration

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## FAA

- Recognize UAVs are coming to the airspace
- Must demand the UAV community speak with a single voice

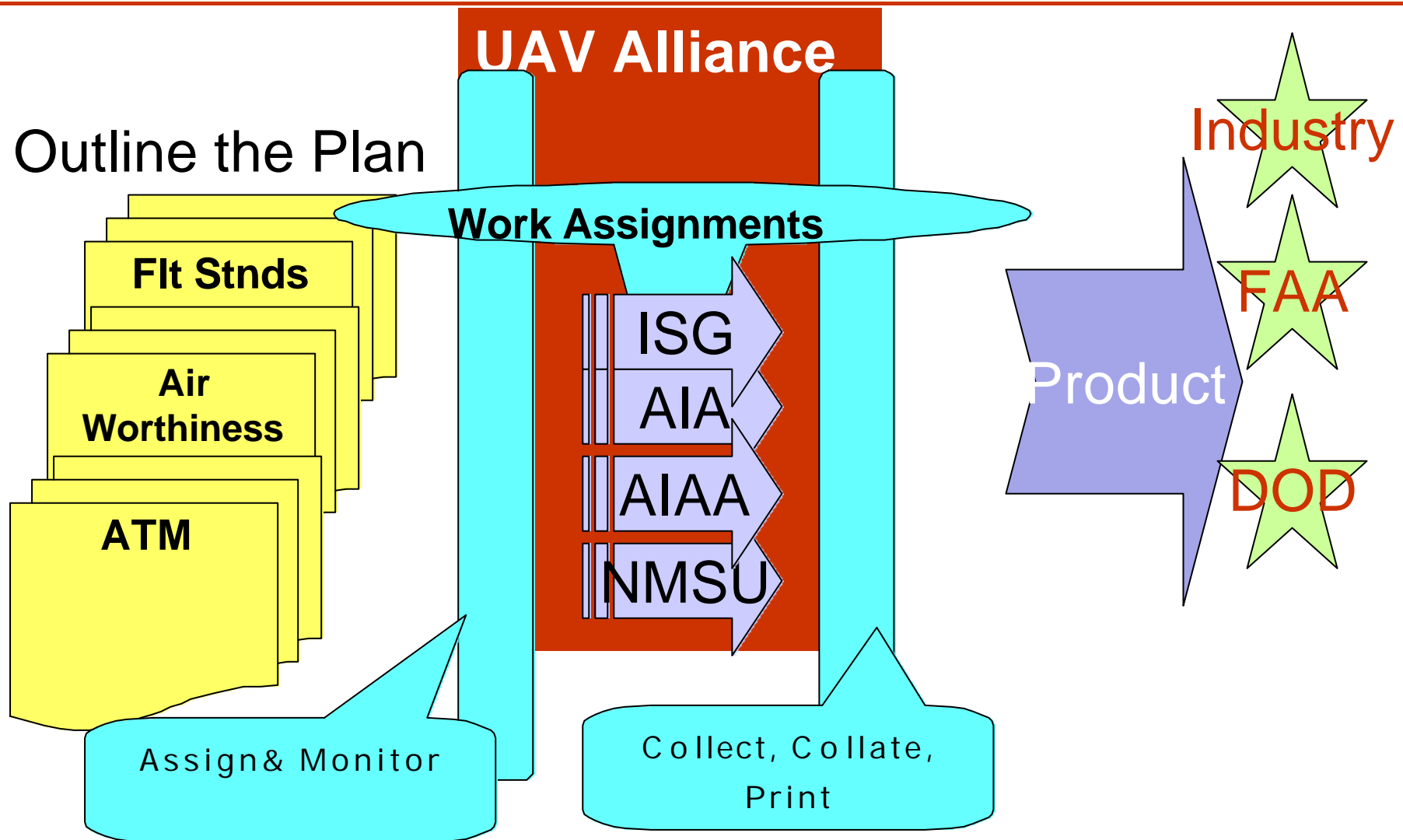
## UAV Industry

- We all merge our FAA UAV Meetings—
- Invitations to all mailing lists
- Attendees get their money's worth
- No organizational in-fighting
- 4-6 meetings a year—

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# Consensual Views



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# UAV Alliance

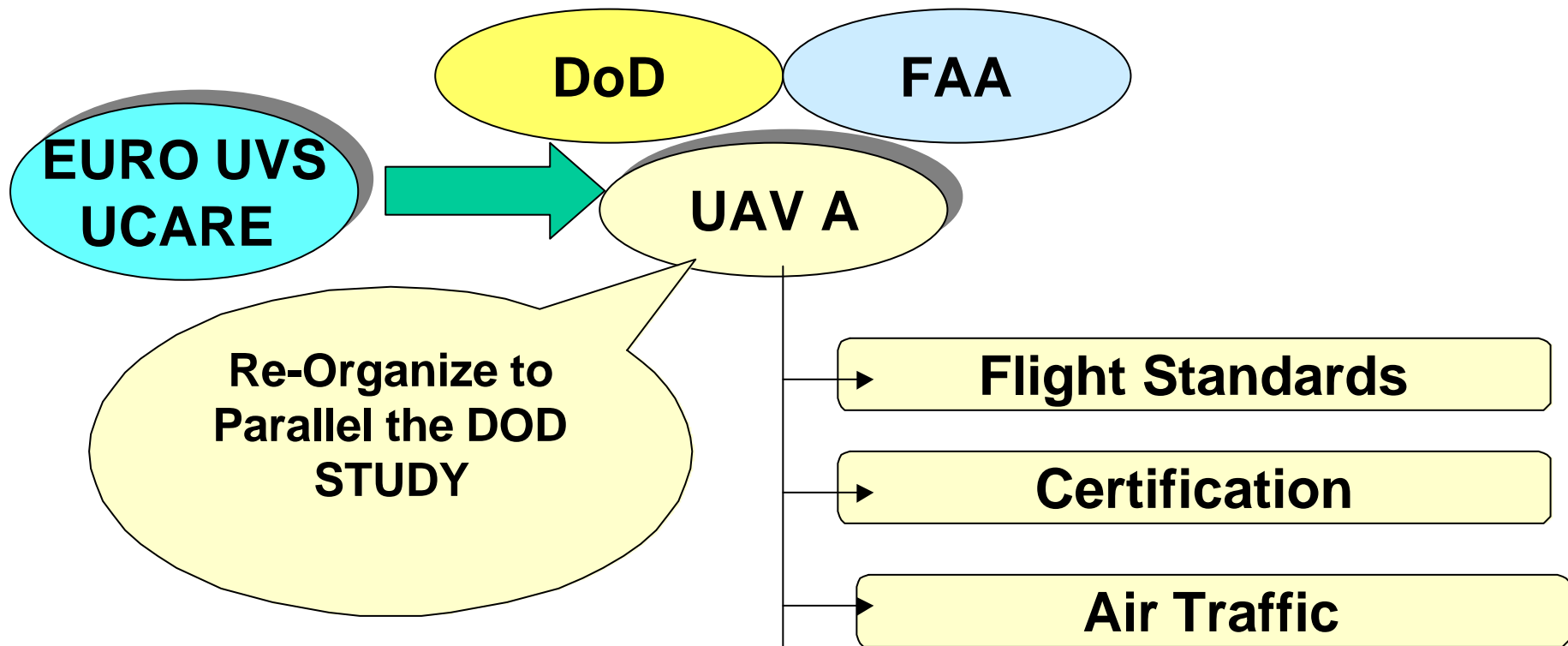
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- One representative from each 'group/player'
- Set the goals, objectives, responsibilities, and the Annual Plan
- Defines the FAA Target list for supports
- Executes the joint plan



# Can Industry Augment the DOD Study Team?



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# Leverage our Strengths (notional)



**Test and Verification  
Validation by **NMSU****

Divide the Work  
Assign to our  
Strengths  
Collect & Collate  
Print & Publish

**Policies/Requirement by  
**AUAVSI and NASA****

**Technologies for solutions by  
**AIAA and NASA****

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# Define the Content

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- Does the UCARE program describe the total requirements?
- Can we adopt it for USA Roadmap?
- Solicit your evaluations and opinions
- Create the Table of Contents for a Report



# UAV Alliance Directs the Work Share

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- UAV Alliance makes assignments to Organizations and their respective working groups to research, create, write, and publish their respective findings.
- UAV Alliance collects, collates, and assembles industry inputs



# One Voice to the FAA

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- The *UAV Alliance* presents the introduction of UAV (ROAs) into the NAS and supports the development of an aviation infrastructure for the safe introduction into the NAS
- The *UAV Alliance* shall represent its Members' interests as the principal advocate and voice for integrating UAVs, both military and commercial, into the NAS before Congress, the Administration, state and local governments and the media.



# Remember the Goal

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- Create, structure, and write a UAV/ROA Roadmap that identifies and answers all the issues needed for Air Traffic, Certification, and Air Worthiness
- Not to mention reliability and insurance?



# CLONE UCARE?

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- Create the Mirror Image of UCARE in the USA
- Can we agree on the scope



# Ideas for Consideration

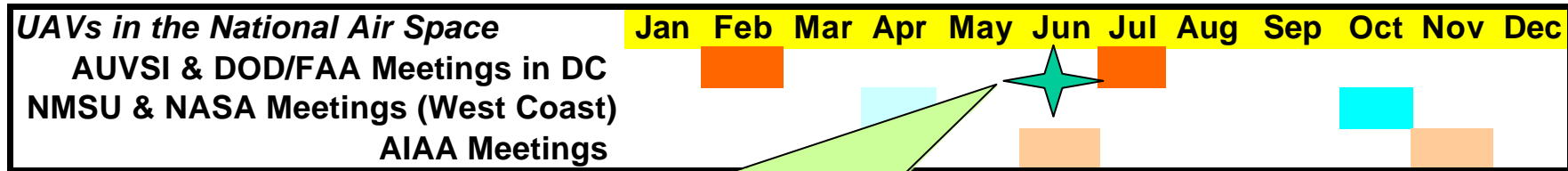
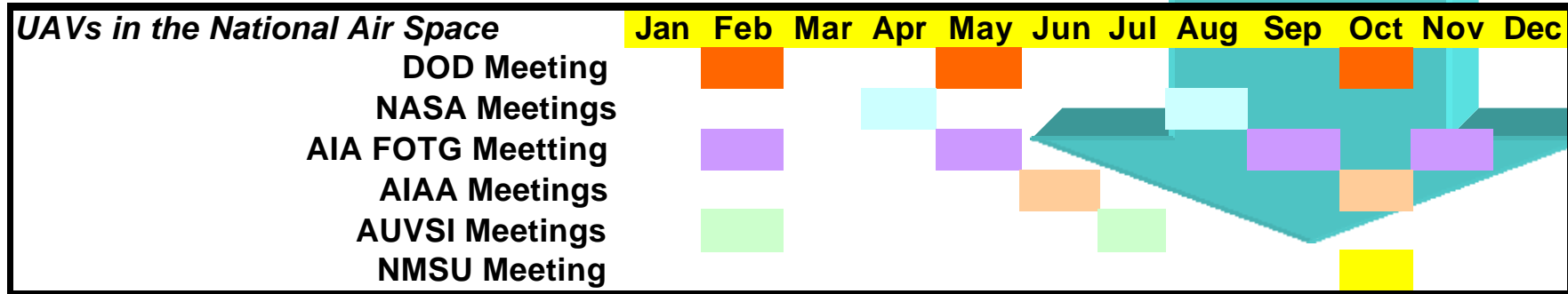
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- UAV Alliance dictates the topics by assignments
- We focus our FAA UAV Meetings–
- Invitations to all organizations
- Attendees get their money's worth
- No organizational in-fighting
- 4-6 meetings a year



# Focus on UAVs in the NAS



All attend plenary session in prep for international session

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# UAV Alliance Timing

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**NOW!**

This is the RIGHT Time to push for key decisions from the FAA to assess the certification, equipage, and access for ROAs into the NAS

- The FAA National Airspace Re-design effort is the single greatest undertaking in reshaping the NAS!



# Expectations

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- It is unrealistic to expect the urgent need for UAVs in support of Homeland Defense to immediately penetrate the FAA's Three Lines of Business and be welcome in the National Airspace—
  - Not this week
  - Not this year



# We have the workforce

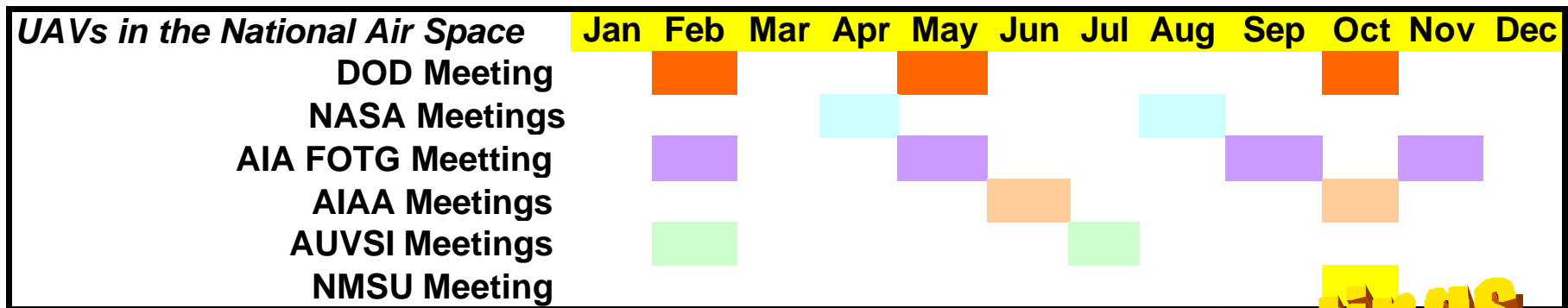
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- We have the workforce and the energy
- We have the best and most experienced leaders on the team
- We can complete the UAV Roadmap in 12-18 months
- Put forth a complete UAV Roadmap and Petition for Rule Making



# How Much Can the Industry Take?



**No Actual Progress**

**Too Many Meetings**

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