

MEMORANDUM FOR RECORD

SUBJECT: PROCEEDINGS — AIR FORCE WESTERN PACIFIC REGION AIRSPACE/RANGE COUNCIL — MANAGEMENT SESSION

1. General

The Air Force Western Pacific Region Airspace/Range Council — Management Session began at 1 pm on January 18, 2006 in Phoenix, Arizona. The Arizona Air National Guard hosted the meeting at the 161st Air Refueling Wing, Sky Harbor Airport. Excellent support was provided to the Western Pacific Region Airspace/Range Council.

2. Council Proceedings for January 18, 2006

A. Remarks/Objectives/Introductions - Colonel Ramage (HQ Arizona Air National Guard) opened the session and welcomed everyone to Phoenix and the council meeting. He briefly described the purpose of this forum. Colonel Mixon, the senior Air Force Representative to the FAA, added a welcome from Colonel Harrison who could not attend the meeting.

B. National Overview – Brigadier General Akey (Commander of the Massachusetts Air National Guard and Co-Chairman of the National Airspace/Range Executive Council) welcomed everyone. He began by stating that the Department of Defense (DOD) is in the middle of a major “Transformation” from conventional weapons systems that have evolved from the Second World War to very advanced weapons system such as the F-22, the F-35, and Unmanned Combat Weapons Systems. These systems require even greater dimensions of training airspace due to their greater speed and weapon delivery ranges. He stressed that everyone is competing for the airspace and effective sharing of the asset will be required. The Air Force is now looking for only what we need and will work with other stakeholders to resolve issues.

C. Unit Operations Briefings –

- **Western Air Defense Sector (WADS), McChord AFB, WA – Lt Col Bakke** described WADS, located near Seattle, as a network of ground-based fixed, mobile and airborne radars and data links that detect, track, and identify unknown or threatening airborne objects. If required WADS will scramble or divert fighters to intercept, identify, and if required engage the unknown object. WADS is responsible for the western two-thirds of the nation and one-half of the normal air traffic within the United States. WADS radars process more than 80,000 radar returns daily and about one or two per day require a formal response. In 2005, 195 Targets of Interest were intercepted by fighter aircraft.
 - **Modernization** – Since September 11, 2001, WADS has been required to track all air traffic, not just the perimeter traffic that has been tracked since the beginning of the Cold War. The interface with the FAA system requires WADS to move to the new (BCS-F) radar system to integrate all sources of information.
 - **Consolidation** – The Northeast and Southeast Air Defense Sectors are being combined and WADS is expanding and will be required to backup all of the new Eastern Air Defense Sectors. That will require additional personnel and facilities.
 - **Fighter Unit Airspace** – WADS either manages or provides Ground Controlled Intercept training in the Warning Areas along the Pacific coast and the Special Use Airspace in all the states

along the northern border from Washington to North Dakota and along the southern border from Pacific Ocean to the Gulf of Mexico as well as airspace within Colorado.

- **WADS Airspace Issues** – 1) Better Radio, Radar, and Data Link coverage, 2) Standard Letters of Agreement with FAA Air Route Traffic Control Centers (ARTCC), and 3) Standard aircraft scramble procedures covering the entire CONUS area of operations.
- **162nd Fighter Wing, Tucson, AZ – Lt Col Salinas** (162 Fighter Wing OG/CC). The mission of the 162nd FW is to train United States and allied nations F-16 fighter pilots while participating as part of the Air Expeditionary Force (AEF) and maintaining Air Sovereignty Alert in F-16 aircraft at the Tucson International Airport. The Wing includes three fighter squadrons and supports the Air National Guard, Air Force Reserve Test Center test and evaluation mission.
 - **Airspace and Ranges** – Primary training airspace is the Barry M. Goldwater Range with 1.7 million acres, four air-to-ground primary ranges and three advanced tactics ranges. Adjacent to the Goldwater Range is the Sells MOA used primarily by Luke AFB and the Ruby & Fuzzy MOAs that are Tucson’s primary transition training airspace. Advanced air to air training is conducted in the Outlaw and Jackal MOAs. The Reserve, Morenci, and Tombstone MOAs are used on a limited basis.
 - **Airspace Issues** – The major concern for training is the development of Special Security Airspace along the southern border of Arizona and New Mexico that overlaps a large portion of the airspace in the Sells, Ruby, and Tombstone MOAs and over the low level route, VR-263.
- **129th Rescue Wing, Moffett Field, CA - Captain Brian Finnerty** (129 RQS). The 129th is located in the heart of Silicon Valley. The 129th Rescue Wing’s mission is to provide trained, well-equipped men and women who can augment the active force during national emergencies or war, and provide assistance during natural disasters and civil disturbances. The motto of the 129th Rescue Wing, "That Others May Live," refers to the primary mission of the Wing - to save lives. The members of the 129th have performed rescues under a variety of conditions - from rough Pacific seas to the rugged Sierra Nevada. The use a combination of HC-130 tankers and HH-60 helicopters. Many high-risk lifesaving missions involved long-range, over-water flights, air refueling of helicopters by the HC-130 aircraft, and skilled maneuvering by ships and helicopters to recover patients from the decks of these vessels. Since its designation as a rescue unit in 1975, the 129th has directly saved the lives of 300 people.
 - **Airspace and Range** – The units primary training airspace is a Low Altitude Tactical Navigation (LATN) area located south of the bay area. They utilize the Fort Hunter Leggett air to ground gunnery range 40 miles north of San Luis Obispo for their small weapons only.
 - **Airspace Issues** – The unit has lost the use of 2 of their 5 helicopter landing zones due to encroachment and they need a larger gunnery range to train with their 50 caliber weapons. The C-130 needs another Landing Zone and Drop Zone. The C-130 had planned on using the Crows Landing LZ but that development is being reconsidered. Another problem has been the temporary loss of the use of the Fort Hunter Leggett dirt landing strip due to improvements required for C-17 operations.
- **Nellis Test and Training Range (NTTR), Las Vegas, NV – Mr. Bee** mentioned that he brought along copies of the Nellis AFB – Mid-Air Collision Prevention Pamphlet that now includes “lights-out” procedures for users of the Nellis AFB Airspace. The mission of the 414th Combat Training Squadron (414 CTS) is to conduct airpower training exercises known as **Red Flags**. A Red Flag is a realistic combat training exercise involving the air forces of the United States and its allies. It is conducted in the Nellis Test and Training Range (NTTR) with most types of combat and support aircraft participating, including the newest fighter the F-22. **Creech AFB** (formerly Indian Springs AFB) is now the home of three operational Unmanned Aerial Vehicle (UAV) squadrons. The 11th, 15th and 17th Reconnaissance Squadrons operate from the base. UAVs can be operated remotely within the vast 3.1 million acre Nellis Range and they generally remain in military airspace when operated in the U.S.

- **Airspace and Range** – Nellis-based aircraft and exercise aircraft utilize the many types of airspace associated with NTTR, that includes Restricted Areas (RA) from the surface to FL 600, Military Operations Areas (MOAs) 100 feet to FL 180, Air Traffic Control Assigned Airspace (ATCAAs) above the MOAs to FL 600, and Military Training Routes (MTRs) - high speed low level training routes below 10,000 MSL.
 - **Airspace Issues** – Increased range and speed capabilities of the F-22 have required a change in large force training to utilize the entire Nellis airspace to provide sufficient – though still less than desired - training space for new weapons systems.
- **144th FW, Fresno, CA – Lt Col Sikora** (144th FW). The 144th Fighter Wing's primary mission is Homeland Defense. As one of the first units assigned to this role, the Wing has been providing security for California's skies for almost 50 years. With the Unit's central location, it provides excellent coverage and protection for the entire state's major population centers and critical infrastructures to include Los Angeles and the Bay area. In light of this, the 144th Fighter Wing and its 18 F-16s and aircrew have had the highest Noble Eagle tasking in the Air National Guard and the Air Force. Unit training consists of 12 to 18 sorties per day/night.
 - **Airspace and Range** – The units two primary training areas are the Edwards Complex - R2508 - and the over water Warning Areas.
 - **Airspace Issues** – There are very few issues concerning airspace. The Edwards Complex is shared with Naval Air Station (NAS) Lemoore and test missions from China Lake and some large scale exercises that included deployed aircraft. The unit would use the proposed Lemoore MOA if time were available once it is approved and charted.
- **Hawaii ANG, Honolulu, HI - Colonel Joe Kim** (Commander, 154th Operations Group). The 199th Fighter Squadron is equipped with F-15 A/B Eagle aircraft which provide interceptor capability for the state's air defense system. The 199th is also tasked with augmenting the active duty U.S. Air Force with air superiority fighters during war or other contingencies. The 203rd Air Refueling Squadron is equipped with KC-135R Stratotanker aircraft which serve to provide worldwide, nonstop air-refueling for almost every type of U.S. fixed-wing aircraft. The 204th Airlift Squadron is equipped with C-130H2/H3 Hercules tactical aircraft which transports National Guard and active duty troops for training, provides paratroop and tactical airdrop capabilities, and delivers relief supplies following natural disasters. The C-130 unit will be converting to C-17 in the near future.
 - **Airspace and Range** – The Navy manages all of the special use airspace in Hawaii.
 - **Airspace Issues** – The only issue is the availability of airspace when a Carrier Group takes over all of the airspace within Hawaii. Another issue is the Army's deployment of UAVs to Dillingham.
- **150th Fighter Wing, Albuquerque, NM - Major Meyer**. The unit flies 15 F-16C Block 40 Night Falcons. They also received a number of F-16C Block 30s to support the tactical training mission at Fort Bliss, as well as F-16Ds for pilot training. The units primary mission is air interdiction in support of the USAF's Air Combat Command with worldwide deployment capability. Unit members recently completed a 90-day deployment to Iraq.
 - **Airspace and Range** - The unit uses three groups of special use airspace: the Cannon AFB complex that includes the Pecos MOAs and Melrose Range; the White Sands Missile Range where they are the lowest priority user; and the Cato MOA that they manage and schedule.
 - **Airspace Issues** – The unit has proposed the Smitty MOA under the CATO MOA to improve training. They are requesting control of the Cannon airspace and Melrose Range after the F-16 Wing at Cannon AFB is closed due to BRAC action.

- **Barry M. Goldwater Range, Arizona – Mr. Chas Buchanan** (56 RMO/ARO). The range's primary users are the active duty Air Force units at Luke AFB and Davis Monthan AFB and the USMC units at Yuma MCAS. The other primary user of the range is the Arizona Air National Guard at Tucson IAP. There are more and more outside units requesting use of the tactical ranges. A key objective is to increase the overall satisfaction of each user.
 - **Airspace Issues** – The increased utilization of the airspace by Customs and Border Patrol is a major factor and simultaneous operations must be assured.

- **Luke AFB, Phoenix, AZ – Mr. Gillies** (56 RMO/ASM). Luke AFB is the home of nine F-16 fighter training squadrons that use the MOAs to the west of the field, as well as the Sells MOA and the Barry M. Goldwater Range. The Arizona airspace users have been meeting on a quarterly basis for many years to schedule and work on problems with utilization as they occur. This has worked very well for Arizona Airspace and will continue. Additionally, Luke AFB and other units have an excellent outreach program to work with people possibly affected by military training.
 - **Airspace and Ranges** – Gladden, Baghdad, Sells MOAs and the Barry M. Goldwater Range.
 - **Airspace Issues** – The major issue in Arizona is the encroachment by the rapid community growth on military training and facilities. The State has been proactive but it may not be enough.

- **161st Air Refueling Wing, Phoenix, AZ - Lt Col Greene** (161 ARW/SE) briefed that the 161st ARW received the re-engined R model KC-135 aircraft in 2004 and the residents surrounding Phoenix Sky Harbor airport have been very pleased with the reduction in noise. The unit primarily supports the training requirements of the Arizona training units and the NM ANG. The unit does not manage any airspace but utilizes many Air Refueling Tracks.

- **Travis AFB, Vacaville, CA - Captain Hietpas** (60 OSS/OSO). The 60th Air Mobility Wing is the largest air mobility organization in the Air Force with two squadrons of C-5 Galaxy cargo aircraft and two squadrons of KC-10 Extender cargo/refueling aircraft. The wing handles more cargo and passengers than any other military air terminal in the United States. The 60th Air Mobility Wing is responsible for strategic airlift and air refueling missions circling the globe. The unit will begin replacing the C-5 aircraft with C-17s this year. The new aircraft will provide strategic airlift but will have need capabilities with tactical low level navigation and off-load capability.
 - **Airspace and Ranges** – The wing uses Air Refueling Tracks to on-load and off-load fuel for training and strategic airlift.
 - **Airspace Issues** – With the arrival of the C-17, the wing will have new training requirements for low level navigation and tactical delivery as well as tactical landing training. Air Mobility Command is assisting Travis in developing IR military training routes and also trying to develop a tactical landing zone. The previously designated site at Crows Landing is being reconsidered.

D. Global Hawk – Mr. Schuller (9 OSS/OSOH). An Air Force goal is to have one-third of the deep strike aircraft unmanned. Global Hawk is a high altitude (Flight Level 600) tactical reconnaissance vehicle that will aid this mix of manned and unmanned aircraft.

- **Advantages** over man aircraft include operational range and endurance with typically 24-hour long missions. These aircraft are operated by a pilot and mission operator crew that control the mission in four hour shifts. Global Hawk is an all digital reconnaissance platform with multiple sensors that can operate up to 35 hours completely autonomously.
- **Disadvantages** include having only a single-engine, single-generator and only 45 minutes of battery power for flight to an acceptable alternate landing location. If control is lost, the system will complete the preprogrammed flight to the planned destination and if no control is attained prior to landing the system will proceed to the planned alternate field where it will circle the field then land and stop straight ahead

on the landing runway. If the aircraft loses power, it will execute the planned engine out divert to the nearest airfield that existed in the systems data base.

E. BLM – Forest Service – Mr. Gall (BLM - Nevada State Office). Mr. Gall began by stating that he was standing in for Ms. Julie Stewart who was unable to attend the meeting and that with such short notice he was unable to get Ms. Stewart's briefing.

- Mr. Gall presented a brief overview of the 2005 Fire Season and expanded on the Nevada land managers interface with the military at Nellis Test and Training Range where the BLM assists with Fire Support in addition to the animal counting responsibility that uses aircraft at very low altitude, in most cases at 200 feet Above Ground Level. The Letter of Agreement with the Air Force provides excellent co-operation between agencies. The co-ordination in Southern Nevada was excellent and was successfully in keeping DOD aircraft away and out of danger.
- The BLM continues to work closely with NTTR, UTTR, and Fallon and now with Mt. Home on the co-ordination required for the up-coming 2006 Fire Season. A problem was encountered during the past Fire Season as non-US citizens were used as contract aircrew working on a fire within the NTTR. The expansion of special use airspace is an issue for the BLM and they will be working toward solutions to issues.
- One major improvement during the past year is the ability for Fire Dispatchers to log on to the FAA web site and create Fire TFRs in real time. The TFR author will also have the ability to use a cell phone to closely co-ordinate with the FAA on necessary modifications to keep them timely.
- The upcoming fire season is shaping up to be severe in Arizona and New Mexico due to the continued drought conditions for the interior southwest. BLM and the Forest Service are forecasting an early and long fire season.

F. National Park Service – Mr. Oppermann (NPS Consultant). Mr. Oppermann noted that he had been working with Regional Airspace Councils since 1995.

- The Park Service is involved with aviation as an operator, the manager of Air Tour management plans through Public Law 106-181, and as the keeper of aviation history.
- A NPS mission is to restore natural sounds to the parks through limiting aircraft and snowmobile operations with park boundaries.
- Current Natural Sounds Program (NSP) activities include working on Air Tour Plans for the Hawaiian Parks, Badlands, Lake Mead, and Mount Rushmore. The NPS is working with the FAA on restoring natural quiet at Grand Canyon NP and developing Soundscape management plans for Zion and Mojave NPS, while considering Mr. Rainier, Yosemite, Devils Post Pile, Sequoia/Kings Canyon and the Muir Woods National Parks.
- Trust has been developed between the NPS and AF and that needs to be preserved through facility visits both at the Parks and at the Bases.
- A very successful joint venture between the NPS and Air Force produced an excellent source document on overflight issues in the Western Pacific region
- Mr. Oppermann concluded by thanking the many past and present people that have contributed to improving inter-agency relationships and solving many problems. The NPS must continue efforts to educate and be educated at these regional airspace meetings.

G. AOPA Perspectives - Mr. Twombly (AOPA)

- **Goal:** The goal of AOPA is make aviation safe, fun, and accessible to the public. The more than 400,000 AOPA members include flight instructors, corporate operators, agricultural pilots, medical transport pilots, and recreational fliers.
- **Special Use Airspace (SUA):** Military pilots are continuously training and maintain a high level of proficiency while General Aviation (GA) pilots do not train similarly. A survey taken by AOPA

indicated that 73% of GA pilots deviate around SUA. The same survey indicated that 92% of AOPA members feel that real-time information about the status of SUA is important and is a major concern. This survey indicates that 72% of pilots will inquire about gunnery range status.

- **UAVs:** AOPA has concerns with introduction of UAVs into the National Airspace System and believe that an equivalent level of safety similar to that of a GA pilot must be met. UAVs along the southern border are also a major concern to GA pilots wishing to navigate alone and across the southern border where more than 1,300 aircraft are based.
- **Phoenix Airspace:** The Luke SFRA proposal is a good example of getting GA involved in the process. We want to be available at the earliest possible stage in order to help mitigate impacts to our members.

H. State Aviation Officials

- **New Mexico – Mr. York** (NM State Aviation Div) briefed the council that his office is the state's proponent for General Aviation. The state has significant Special Use Airspace which must be avoided by GA aircraft. **Southern Border TFR:** A major concern is that a 15-NM wide TFR along the border south of the White Sands Special Use Airspace will leave almost no VFR airspace left to traverse the El Paso area.
- **Arizona – Mr. Boucher** (ADOT Aeronautics Division) began his briefing by welcoming the council to Arizona. Mr. Boucher commended the military airspace users in the state for their creation and open participation in the Arizona Airspace Users Group. This group has provided good co-ordination between Military and Civilian GA pilots and has worked on concepts to accommodate the many users of the airspace in Arizona.

3. **January 18th Session Adjourned: Colonel Ramage** adjourned the day's session at 5 pm.

4. **Council Proceedings for January 19, 2006**

A. Opening Remarks – Colonel Ramage call the meeting to order and mentioned that the scheduled DHS – UAV Operations briefing would be moved to the first item to allow additional time for a DOD, DHS, and FAA breakout to commence after the DHS briefing to work on procedures that will best allow simultaneous operations along the southern border.

B. DHS – UAV Operations – Mr. McNall (CBP - UAV Operations) began his briefing with the new post Sept. 11, 2001 priority mission statement: "Preventing terrorists and terrorist weapons from entering the United States." For the 2005 Fiscal Year, the Customs and Border Patrol (CBP) made 1.15 million arrests, seized 1.2 million pounds of marijuana and 12,000 pounds of cocaine. Nationally the CBP has 258 aircraft and within Arizona they have flying operations from five locations employing fixed wing prop and jet aircraft, helicopters, and now the Predator B UAV that was purchased in October 2005.

- **The Predator B** has a greater than 30 hours on-station endurance up to 50,000 feet with a maximum speed of 250 knots and a loiter speed of 73 knots. The aircraft has the capability of performing multiple missions simultaneously due to its large payload. The current operational area is the southern border of Arizona. Additional aircraft will be acquired to complete coverage from the California coast to the Texas coast.
- **UAV advantages:** The Predator allows covert operations due to its low acoustic signature. Its large payload allows it to carry a variety of intelligence gathering suites. It can cover a large area, all of the major smuggling corridors in Arizona, and relocate quickly to another area of operations.
- **Current Program Status:** The FAA has established a Temporary Flight Restricted (TFR) Zone for UAV operations with the issuance of a COA on January 6, 2006 that extends 15 miles from the border

approximately 300 miles long with vertical limits from 12,000 to 14,000 feet MSL. A goal is to operate in Class A airspace.

C. Military Reps to the FAA – Perspectives/Issues:

- **Air Force Rep to FAA - Major Barton** (AFREP (AWP 910), FAA WP Region). Major Barton introduced Lt. Col David Sampson as the last AFRep to the Western Pacific Region. Effective July 1, 2006 the admin position will transfer to Seattle and the Western Pacific office will close when Lt. Col. Sampson is transferred, estimated to be in early 2009.
 - **OE-AAA Training:** It is important for each unit to have people trained in how to utilize Tower Notification information to insure their airspace will not be impacted by new towers. All MTRs are plotted on and presented on sectional charts with the new towers. Training from the FAA Academy may be possible in May.
 - **GPS Approaches:** As airports without instrument approaches are establishing GPS approaches, we must be aware of the potential impact on MTRs and MOAs.

- **Navy Rep to FAA - CDR Swedensky** (NAVREP - FAA WP Region (AWP-530)). CDR Swedensky briefed that the Navy Rep Office reports to the Chief of Naval Operations Airspace and Air Traffic Control office. They are the Navy's Airspace Manager. NAVREPs provide liaison between regional airspace coordinators and regional FAA headquarters. Navy and Marine personnel at the WP Regional expect to be reassigned to Seattle.
 - **UAVs:** The Navy has UAV issues similar to those of the Air Force. The Navy will be receiving the Global Hawk to be based with NAVAIR, Patuxent River NAS Maryland. The Navy also operates several smaller UAVs that are certified by NAVAIR or the Operational Commander (OCE). The same "see and avoid" issues apply.
 - **Airspace Issues:** In 2002, the Navy and California ANG initiated the establishment of a new Special Use Airspace (SUA) consisting of a Military Operations Area (MOA) and Air Traffic Controlled Assigned Airspace (ATCAA) at NAS Lemoore, California. The airspace would be 30 by 70 nautical miles. The airspace would enable Navy squadrons at NAS Lemoore and the California ANG to meet training requirements. The ARTCC had coordinated the airspace concept. Then the FAA reorganized. There are now conflicts with the new airspace. They have had no comment from the FAA.

- **Army Rep to FAA – LTC Kowal** (DARR - FAA Western Pacific Region (AWP-920)). The Army has many of the same issues that the Air Force and Navy. The office will remain in Los Angeles for two more years and Lt Col Kowal expects to be the last DARR at the Western Pacific Region.
 - **UAVs:** The biggest issue is the need for Special Use Airspace to support UAV operations.
 - **Army Facilities:** The Army Aviation installations in Arizona, California, and Nevada are supporting accelerated training to support current Army and the increased National Guard operational training requirements. Aviation operations are conducted at Moffett Field and Fort Hunter Liggett in California and Yuma Proving Grounds and Fort Huachuca in Arizona. Fort Huachuca with its Restricted Airspace is the Army's primary UAV training area.
 - **Fort Bliss:** Fort Bliss in El Paso will soon be the home of nearly one-half of all of the Army's Armored Divisions as units return from Europe.

D. Warfighter Brief – Lt Col Carillo (150 FW / OG) briefed that the Nation is at war and the Air National Guard is supporting active duty elements by being "Ready, Reliable, and Relevant."

- **Ready:** Units must be ready to employ weapons in a hostile environment at times with allied troops engaged with the enemy in close proximity of civilians. In such an environment they must be able to kill the hostile elements without killing any friendly troops or any non-combatant civilians.
- **Reliable:** Units are part of the Air Expeditionary Force (AEF) rotation with a 15-month cycle to prepare for the next deployment.
- **Relevant:** Units must train as they will fight because with the current world environment they will be in a combat environment on a regular basis. Training must include new weapons and new capabilities with survivable stand-off capabilities. Training in a realistic urban environment with the intelligence, command, control, and data environment associated with today's combat environment.

E. FAA Perspectives

- **ATOs and TMUs - Mr. Lowe** (Director, Tactical Operations, FAA Central Service Area (ATO-R)) gave with an overview of the current organization of the FAA Operations Units.
 - **Space:** The next frontier – civilian space flight is a major concern that the FAA is currently planning for. Fifteen companies have announced plans for space operations.
 - **ATO:** Mr. Lowe is the Director, Tactical Operations for Central Service Area, Air Traffic Organization (ATO), one of five Directors in the Continental US. Four of the top ten busiest airports in the country are located in the Los Angeles, Las Vegas, and Phoenix triangle. The ATO offices attempt to provide a plan to accommodate military training while offering the most expeditious routes around weather when required.
 - **Strategic Planning:** The FAA's Traffic Management Units (TMU) host a daily conference call that attempts to meet all competing requirements for airspace for that day. The TMUs are planning for the next generation of aircraft by working with all airspace customers to accommodate the changing mission requirements with a special emphasis on support of UAV operations.
- **MADE (Military Airspace Data Entry) - Mr. Perkins** (FAA Headquarters). The FAA decided to redo the special use airspace tracking system into a web-based system to enable easy data entry and to provide users with near real-time usage information. The system was designed to accept DOD "Automated Daily Schedule Inputs" and archive data to be used to create airspace utilization reports. The MADE software will streamline the data entry process and is designed to be a tool for the users. The system is currently available and in use a several sites. We are Beta testing future software versions for release which enhance the usability of the system.
- **Special Use Airspace Processing - Mr. McGrath** (FAA - Central Terminal Services Area (AGL 530.8)). In the FAA re-organization, airspace and environment processing is consolidated in three service areas with the West at Seattle. New Mexico will be in the Central area at Ft Worth.
 - **The FAA / DOD Memorandum of Understanding (MOU)** concerning environmental review of SUA actions was signed and became effective in October 2005. That MOU defines lead and cooperating agency responsibilities and addresses Categorical Exclusions. The DOD document is 32 C.F.R. Part 989 and the FAA documentation is in FAA Order 1050.1E. FAA Order 7400.2E provides the procedures for handling airspace matters and a new Chapter 32, addresses environmental matters.
 - Besides 7400.2E, the proponent must reference FAA Order 1050.1E, Environmental Impacts; Policies and Procedures. Very important.
 - **Key Issues:** Consistency, act as cooperating agency, and participate early in both the airspace and environment process. The FAA will participate in Environmental Determination and provide for the use of an Abbreviated Environmental Assessment (a shortened EA, not a CATEX).

- The FAA reply to the proponent's request for the FAA to be a cooperating agency will include, in addition to accepting the request, information for the proponent as to what documents to reference from the FAA side, and additional information helpful for the proponent.
- **Critical:** The aeronautical proposal and the environmental descriptions must agree completely.

F. Wind Energy – Mr. Arenson (AFCEE/CCR-S). The Air Force Western Regional Environmental Office (REO) located in San Francisco includes the four western states (Arizona, California, Hawaii, Nevada) and Guam. The REO support services mission through coordination, communication and facilitation of regional environmental issues.

- **Wind Generated Energy Facilities:** There are two primary issues: Obstructions and Radar Interference. Windmills can affect radar performance by changing air-to-air detection capabilities, create false alarms, and affect moving target detection and mapping capabilities.
- **Where is the Wind?** In the Western Pacific Region the sites with the greatest wind generating potential exist on the western slope of rising terrain. The west coast of California and the Deserts of Southern California have the best wind potential. Scattered areas in Arizona and Nevada present acceptable conditions for wind generation of energy.
- **DOD Regional Wind Working Group:** The working group was developed to familiarize each concerned party with the missions of others and facilitate discussion, exchange information, and resolve areas of concern. The group has been successful in maintaining communication between agencies and developing an outreach program. The group has developed State-wide Maps with wind farm locations and areas of potentially high energy availability.
- **Lessons Learned:** Early engagement with project proponents. Create a robust GIS product. When appropriate, have a joint DOD engagement with the land use decision makers and ensure the DOD lead is a local advocate.
- **Energy Policy Act of 2005 – Energy Corridors:** This act promotes the use of alternative energy and directs that not later than two years after enactment corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on Federal land in the eleven contiguous Western States are to be designated. This has significant implications for military training. DoD is engaged with other Federal agencies in this process.

G. Recap of DoD-DHS Breakout — Colonel Mixon summarized the breakout session held to coordinate near-border activities.

- Telcon with DHS and FAA
- Will develop Letters of Procedure
- Will establish DoD-DHS agreements on how to separate aircraft
- The TFR will have minimal impact
- FAA to discuss with AOPA on 20 January

H. Action Item Recap – Mr. Rose (Apogen Technologies). Accepted for further action by the council:

Action Item: C-17 Low level navigation training impacts on Pu`uhonua o Honaunau National Historical Park that preserves the site where, up until the early 19th century, Hawaiians who broke a kapu or one of the ancient laws against the gods could avoid certain death by fleeing to this place of refuge or "pu`uhonua". The NPS only received notice of the route when the FONSI was published.

OPR: The Air Force Ranges and Airspace Division (AF/A3O-AR) will research the airspace action.

I. Closing Remarks – Brig Gen Akey. Thanks to all for participating in this forum. Good communication!
This is the last meeting for Colonel Ramage. We all thank him for his years of involvement and service.

5. Next Meeting – A Management Council meeting will be held in January 2007 on a date and at a location to be determined.

6. Meeting Adjourn: Colonel Ramage adjourned the Management Session at 11:30 am.

7. Approved:

// Signed //

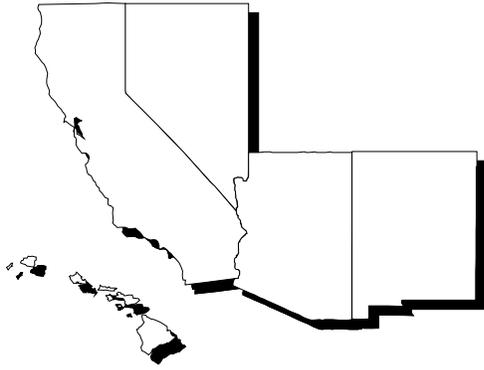
KENNETH RAMAGE, Colonel, USAF
Arizona Air National Guard
Co-Chairman, Western Pacific Region
Airspace/ Range Council

// Signed //

MICHAEL MIXON, Colonel, USAF
Director, Air Force Office, Headquarters FAA
Air Force Directorate of Operations and Training
Acting Co-Chairman, Western Pacific Region
Airspace/Range Council

Attachments:

1. Agenda
2. List of Attendees

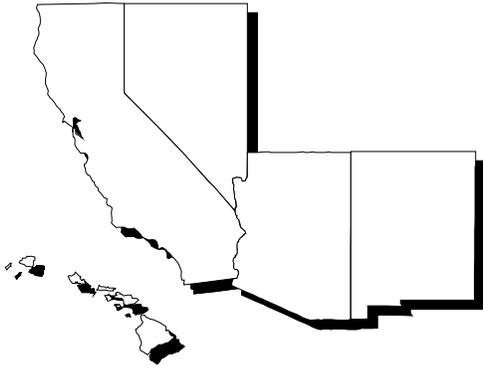


**Air Force Western Pacific Region
Airspace/Range Council
Phoenix, AZ
18-19 January 2006**

18 January Management Session

1:00	Welcoming Remarks	Colonel Ramage
1:15	National Overview	Brig Gen Akey
1:45	Unit Operations Briefings - Aircraft - Airspace - Problems and Issues Being Worked or Recently Solved	Lt Col Jergensen
	(Opportunity for other agencies to identify issues)	
2:45	Break	
3:15	Global Hawk	Mr. Schuller
3:30	BLM – Forest Service	Ms. Stewart
3:45	National Park Service	Mr. Oppermann
4:00	AOPA	Mr. Twombly
4:15	State Aviation Officials	TBD
4:30	Breakout Sessions for Tomorrow?	Lt Col Jergensen
-		
4:45	Session Wrap Up	Colonel Ramage

(over)



**Air Force Western Pacific Region
Airspace/Range Council
Phoenix, AZ
18-19 January 2006**

19 January Management Session

8:00	Opening Remarks	Colonel Ramage
8:10	Warfighter Brief	
8:30	Military Reps to the FAA — Perspectives/Issues	Lt Col Sampson; Major Barton CDR Swedensky LTC Kowal
8:45	Military Airspace Data Entry (MADE) Tool	Mr. Rowe
9:00	FAA Perspectives	Mr. Lowe; Mr. Perkins Mr. McGrath
9:40	BREAK	
10:10	DHS – UAV Ops	Mr. McNall Mr. Paladini
10:25	Wind Energy	Mr. Arenson
10:55	Breakout Sessions - -	
11:40	Breakout Summaries	
11:50	Action Item Recap	Mr. Rose
11:55	Next Meeting	Colonel Ramage
12:00	Adjourn	Colonel Ramage

ATTENDEES

Brig Gen Michael Akey HQ MA ANG/CC 50 Maple Street Milford, MA 06078	DSN: 256-7485 Comm: (508) 233-7485 Cell: (413) 209-4922 E-mail: michael.akey@mabarn.ang.af.mil
Mr. Steve Arenson AFCEE/CCR-S 333 Market Street, Ste 625 San Francisco, CA 94105-2196	DSN: Comm: (415) 977-8850 Cell: E-mail: steven.arenson@brooks.af.mil
Lt Col Vince Bakke WADS/DOS 852 Lincoln Blvd. McChord AFB, WA 98438	DSN: 382-4398 Comm: (253) 982-4398 Cell: (406) 799-1197 E-mail: vincent.bakke@wads.mcchord.af.mil
Mr. Keith Barge 412 TW/EWR ATTN BA7770 95E North Base Edwards AFB, CA 93524	DSN: 525-8400 x53090 Comm: (661) 275-8400 Cell: E-mail: keith.barge@oln-afmc.af.mil
Major Allen Barton AFREP (AWP 910), FAA WP Region PO Box 92007 Los Angeles, CA 90009-2007	DSN: 833-0481 Comm: (310) 725-3901 Cell: E-mail: allen.barton@faa.gov
Mr. Dennis Bee 57 OSS/OSM 4450 Tyndall Ave Nellis AFB, NV 89191-6067	DSN: 682-7891 Comm: (702) 652-7891 Cell: E-mail: dennis.bee@nellis.af.mil
Major Joe Bell 9 RW 1RS/DOC Beale AFB, CA	DSN: 368-3838 Comm: Cell: E-mail: joe.bell@beale.af.mil
LCDR Wesley Bomyea FACSFAC San Diego P.O. Box 357062 San Diego, CA 92135-7062	DSN: 735-1745 Comm: (619) 545-1745 Cell: E-mail: wesley.bomyea@navy.mil
Mr. Ray Boucher ADOT Aeronautics Division 255 E. Osborn Phoenix, AZ 85022	DSN: Comm: (602) 294-9144 Cell: E-mail: RBoucher@azdot.gov
Mr. Mark Brown Concept Solutions 12020 Sunrise Valley Dr., Ste 100 Reston, VA 20190	DSN: Comm: Cell: (703) 282-7007 E-mail: mark.brown@conceptsolutions.com

ATTENDEES (Cont.)

Mr. Chas Buchanan 56 RMO/ARO 7224 North 139th Drive Luke AFB, AZ 85309-1420	DSN: 896-8813 Comm: (623) 856-8813 Cell: (602) 319-0543 E-mail: chas.buchanan@luke.af.mil
Mr. Jim Callahan 57 OSS/OSM 4450 Tyndall Ave Nellis AFB, NV 89191-6067	DSN: 682-6490 Comm: (702) 652-6490 Cell: E-mail: james.callahan@nellis.af.mil
Lt Col Frank Carillo 150 FW / OG 2251 Air Guard Rd. SE Albuquerque, NM 87117-5875	DSN: 246-7431 Comm: Cell: E-mail: Frank.Carillo@nmkirt.ang.af.mil
Ms. Sandra Ciriaco Airspace Management Naval Air Warfare Center China Lake, CA 93555	DSN: 437-5480 Comm: (760) 939-5480 Cell: E-mail: sandra.ciriaco@navy.mil
Lt Col William Crowe HQ USAF/XOO-ARA 1621 N. Kent St., Ste 320 Rosslyn, VA 22209	DSN: 425-2018 Comm: (703) 588-2018 Cell: E-mail: william.crowe@pentagon.af.mil
Major John Dickmann 161 ARW 3200 E. Old Tower Rd. Phoenix, AZ 85034	DSN: 853-9026 Comm: (602) 302-9026 Cell: (480) 231-3774 E-mail: john.dickmann@azphoe.ang.af.mil
Mr. Charles Dobson 2 OSS/OSKA 41 Orville Wright Dr Barksdale AFB, LA 71110-2085	DSN: 781-5225 Comm: (318) 456-5225 Cell: E-mail: charlie.dobson@barksdale.af.mil
Mr. Frank Domingues BLM - Western Great Basin Coordination Center 1340 Financial Blvd. Reno, NV 89502	DSN: Comm: (775) 861-6455 Cell: E-mail: frank_domingues@nv.blm.gov
Lt Col Kent Dukes 162 OG/OSF Tucson, AZ	DSN: 844-6894 Comm: (520) 295-6894 Cell: E-mail: kent.dukes@aztucs.ang.af.mil
Captain Brian Finnerty 129 RQS Moffett Federal Airfield, CA	DSN: 359-9357 Comm: (650) 603-9357 Cell: (505) 264-0632 E-mail: brian.finnerty@camoff.ang.af.mil

ATTENDEES (Cont.)

Mr. Greg Gall BLM - Nevada State Office P.O. Box 12000 Reno, NV 89520	DSN: Comm: (775) 861-6535 Cell: E-mail: gcall@nv.blm.gov
Mr. William Gillies 56 RMO/ASM 7224 North 139th Drive Luke AFB, AZ 85309-1420	DSN: 896-5855 Comm: (623) 856-5855 Cell: (602) 499-1302 E-mail: william.gillies@luke.af.mil
Mr. Timothy Gravelle HQ AMC/A36AA 402 Scott Drive, Unit 3A1 Scott AFB, IL 62225-5302	DSN: 779-4557 Comm: (618) 229-4557 Cell: E-mail: timothy.gravelle@scott.af.mil
Lt Col Khrisna Greene 161 ARW/SE 3200 E. Old Tower Rd. Phoenix, AZ 85034	DSN: 853-9165 Comm: (602) 302-9165 Cell: E-mail: khrisna.greene@azphoe.ang.af.mil
Mr. Bill Gries 412 OSS/OSAA 235 S Flightline Rd Edwards AFB, CA 93524-6460	DSN: 527-2446 Comm: (661) 277-2446 Cell: E-mail: bill.gries@edwards.af.mil
Mr. Thomas Griffin CBP Air / AMOC 1355 Customs Way MARB, CA 92518	DSN: Comm: (951) 656-0977 Cell: (951) 236-3030 E-mail: thomas.h.griffin@dhs.gov
Brig Gen Mike Gullihur NV ANG - AAGA 1776 National Guard Way Reno, NV 89502	DSN: 830-4579 Comm: Cell: (775) 846-3870 E-mail: michael.gullihur@nvreno.ang.af.mil
Lt Col Dana Hesheimer 196 ARS/DO	DSN: 447-7162 Comm: (951) 655-7162 Cell: E-mail:
Captain Greg Hietpas 60 OSS/OSO Travis AFB, CA	DSN: 837-3693 Comm: Cell: E-mail: gregory.hietpas@travis.af.mil
Brig Gen Marty Holland HQ NMANG / Chief of Joint Staff PO Box 90446 Albuquerque, NM 87199	DSN: Comm: (505) 857-0954 Cell: E-mail: martin.hollandlaw@comcast.net

ATTENDEES (Cont.)

Lt Col Curt Jergensen 162 FW Tucson, AZ	DSN: Comm: (602) 692-6129 Cell: E-mail: hjergensen@cox.net
Mr. Tom Kelley 60th Air Mobility Wing OSS/OSO 611 E St/ Travis AFB, CA 94535	DSN: 837-1075 Comm: (707) 424-1075 Cell: (707) 685-2780 E-mail: thomas.kelley@travis.af.mil
Mr. David Killebrew Tonto National Forest 2324 E. McDowell Rd. Phoenix, AZ 85006	DSN: Comm: (602) 225-5239 Cell: E-mail: dkillebrew@fs.fed.us
Colonel Joe Kim Commander, 154th Operations Group 900 Hangar Ave., Bldg 2035 Hickam AFB, HI 96853	DSN: 315-448-8307 Comm: (808) 448-8307 Cell: (808) 429-5309 E-mail: joseph.kim@hihick.af.mil
Mr. Harry Knudsen, Jr. ANG/CEVP 3500 Fetchet Ave Andrews AFB, MD 20762-5157	DSN: 278-8143 Comm: (301) 836-8143 Cell: E-mail: harry.knudsen@ang.af.mil
LTC Peter Kowal FAA - Western Pacific Region (AWP-920) P.O. Box 92007 Los Angeles, CA 90009-2007	DSN: Comm: (301) 725-3909 Cell: (703) 927-7990 E-mail: pete.kowal@faa.gov
Mr. John Lambert HQ AFRC/DOVA 155 Richard Ray Blvd Robins AFB, GA 31098-1635	DSN: 497-1708 Comm: (478) 327-1708 Cell: E-mail: john.lambert@afrc.af.mil
Mr. Rob Lowe Director, Tactical Operations Central Service Area (ATO-R) 2601 Meachum Blvd. Ft. Worth, TX 76137	DSN: Comm: (817) 222-5589 Cell: (940) 372-1940 E-mail: rob.lowe@faa.gov
Major Alison MacBain Airspace Coord for Marine Corps Installations, West Coast MCAS Miramar San Diego, CA	DSN: 267-1924 Comm: (858) 577-1924 Cell: E-mail: alison.j.macbain@usmc.mil
Mr. Darren Mathis BLM Arizona	DSN: Comm: (435) 688-3355 Cell: (435) 680-0916 E-mail: darren_mathis@blm.gov

ATTENDEES (Cont.)

Mr. Roger McGrath FAA - Central Terminal Services Area (AGL 530.8) 2300 E. Devon Ave Des Plaines, IL 60018	DSN: Comm: (847) 294-7048 Cell: (847) 477-6038 E-mail: roger.mcgrath@faa.gov
Mr. Peter McNall CBP - UAV Operations P.O. Box 15009 Tucson, AZ 85708	DSN: Comm: (520) 670-6546 Cell: (520) 820-1024 E-mail: peter.mcnall@dhs.gov
Mr. Norman McNeal 412 TW/EWR ATTN MC8823 95E North Base Edwards AFB, CA 93524	DSN: 525-8400 x53729 Comm: (661) 275-8400 Cell: E-mail: nmcneal@oln-afmc.af.mil
Major Martin Meyer NM ANG 2251 Air Guard Road SE Kirtland AFB, NM 87110	DSN: Comm: (505) 846-7431 Cell: (505) 573-0475 E-mail: martin.meyer@nmkirt.ang.af.mil
Colonel Rick Mitchell NAEC Exec Asst; CTANG/DO 100 Nicholson Rd. E. Granby, CT 06026-9309	DSN: 220-2356 Comm: (860) 292-2356 Cell: (603) 320-1407 E-mail: richard.a.mitchell@faa.gov or richard.mitchell@ctbrad.ang.af.mil
Colonel Mike Mixon HQ FAA/AJR-01 800 Independence Ave SW Washington, DC 20591	DSN: 325-6270 Comm: (202) 267-9427 Cell: E-mail: mike.mixon@faa.gov
Lt Col Tom Moore ANG/SCA 1411 Jefferson Davis Hwy Arlington, VA 22202-3233	DSN: 327-0219 Comm: (703) 607-0219 Cell: E-mail: thomas.moore@ngb.ang.af.mil
Mr. Mike Nelson AF/XOO-ARA 1621 N. Kent St., Suite 320 Rosslyn, VA 22209	DSN: 425-2006 Comm: (703) 588-2006 Cell: E-mail: michaelb.nelson@pentagon.af.mil
Mr. Ed Odom HQ ACC/A3AA 205 Dodd Blvd., Ste 105 Langley AFB, VA 23665-2789	DSN: 574-6002 Comm: (757) 764-6002 Cell: E-mail: edward.odom@langley.af.mil
Mr. Stephen Oppermann NPS Consultant 3015 S. Linley Ct Denver, CO 80236	DSN: Comm: (303) 922-7409 Cell: E-mail: opie89@comcast.net

ATTENDEES (Cont.)

CW5 Michael Ostermeyer
AZ ARNG AASF#2
Silver Bell Army Heliport
Marana, AZ 85653-9598
DSN: 853-5624
Comm: (520) 616-5624
Cell: (602) 316-1072
E-mail: michael.ostermeyer@az.ngb.army.mil

Mr. Steve Paladini
Director, CBP UAV Flight Ops Service Center
3320 E. Fry Blvd., Suite B
Sierra Vista, AZ 85635
DSN:
Comm: (520) 458-4454
Cell: (520) 456-5098
E-mail: spaladini@orgstrategies.com

Mr. Jim Perkins
FAA Headquarters
800 Pennsylvania Ave SW, Rm 301
Washington, DC 20591
DSN:
Comm: (202) 267-9166
Cell: (515) 570-2178
E-mail: jim.perkins@faa.gov

Mr. Gary M. Presley
355 OSS/OSOA
3895 S. Sixth St., Ste 200
Davis-Monthan AFB, AZ 85707
DSN: 228-4680
Comm: (520) 228-4680
Cell:
E-mail: gary.presley@dm.af.mil

Colonel Ken Ramage
HQ Arizona Air National Guard
16311 N 36th Ave.
Phoenix, AZ 85053
DSN:
Comm: (602) 770-5289
Cell:
E-mail: kramage@attg.net

Mr. Juan Rodriguez
CBP TSPO
22289 Exploration Dr., Ste 300
Lexington Park, MD 20653
DSN:
Comm: (301) 866-1732
Cell: (240) 925-5949
E-mail: jrodriguez@orgstrategies.com

Mr. Gary Rose
Apogen Technologies, Inc.
7370 N. Catalina Ridge Dr
Tucson, AZ 85718-1369
DSN:
Comm: (520) 360-5225
Cell:
E-mail: gary.rose@email.apogentech.com

Lt Col Jose Salinas
162 Fighter Wing OG/CC
DSN: 844-6108
Comm: (520) 295-6108
Cell:
E-mail: jose.salinas@aztucs.ang.af.mil

Lt Col David Sampson
AFREP (AWP 910), FAA WP Region
PO Box 92007
Los Angeles, CA 90009-2007
DSN: 833-0481
Comm: (310) 725-3901
Cell:
E-mail: david.sampson@faa.gov

Mr. Rob Saraniero
HQ USAF/XOO-ARA
1621 N. Kent St., Ste 320
Rosslyn, VA 22209
DSN: 425-2019
Comm: (703) 588-2019
Cell: (703) 850-4238
E-mail: michael.saraniero@pentagon.af.mil

ATTENDEES (Cont.)

Mr. Walter Schobel 2 ROPS/DON 1602 California Blvd, Ste 144 Vandenberg AFB, CA 93437-5216	DSN: 276-3602 Comm: (805) 606-3602 Cell: (805) 452-4616 E-mail: walter.schobel@vandenberg.af.mil
Mr. John Schuller 9 OSS/OSOH Cell: (530) 415-0802 Beale AFB, CA 95903	DSN: 368-9179 Comm: (530) 634-9179 E-mail: john.schuller@beale.af.mil
Mr. Pete Schwab Coronado National Forest 300 W Congress Tucson, AZ 85701	DSN: Comm: (520) 388-8464 Cell: (520) 400-5874 E-mail: pschwab@fs.fed.us
Mr. Bruce Shaffer BLM - Associate District Manager 22835 Calle San Juan De Las Logos Moreno Valley, CA	DSN: Comm: (951) 697-5205 Cell: E-mail: bruce_shaffer@ca.blm.gov
Maj Gen Michael Shira Commander, Arizona Air National Guard 5636 E. McDowell Rd Phoenix, AZ 85007	DSN: 853-2994 Comm: (602) 267-2994 Cell: E-mail: michael.shira@az.ngb.army.mil
Lt Col Victor Sikora 144 FW 5323 E. McKinley Ave. Fresno, CA 93727-2199	DSN: 839-5186 Comm: (559) 454-5186 Cell: E-mail: victor.sikora@cafres.ang.af.mil
Ms. Shauna Smith CCIFC 1770 W. Kittyhawk Cedar City, UT 84720	DSN: Comm: (435) 865-4604 Cell: E-mail: shauna_smith@blm.gov
Mr. Kim J. Stevens Arizona DOT, Aeronautics Division 255 E. Osborn Rd., Suite 101 Phoenix, AZ 85012	DSN: Comm: (602) 294-9144 Cell: E-mail:
CDR Dave Swedensky NAVREP - FAA WP Region (AWP-530) PO Box 92007 Los Angeles, CA 90009-2007	DSN: Comm: (310) 725-3904 Cell: E-mail: david.swedensky@faa.gov
Mr. Tim Tarris Apogen Technologies, Inc. 9291 N. Calle Buena Vista Tucson, AZ 85737	DSN: Comm: (520) 297-8632 Cell: (520) 275-3726 E-mail: ttarris@aol.com

ATTENDEES (Cont.)

Mr. Ronald Taylor
BLM - Ely Field Office
HC 33, Box 33500
Ely, NV 89301

DSN:
Comm: (702) 289-1925
Cell:
E-mail: NNR40@hotmail.com

Mr. Howard Travis
R-2508 Central Coordinating Facility
100 East Sparks Drive
Edwards AFB, CA 93524

DSN: 527-4096
Comm: (661) 277-4096
Cell:
E-mail: howard.travis@edwards.af.mil

Mr. Ian Twombly
AOPA
421 Aviation Way
Frederick, MD 21701

DSN:
Comm: (301) 695-2207
Cell:
E-mail: ian.twombly@aopa.org

Mr. Martin Vaughan
CBP Air - Tucson
PO Box 15009 DM AFB
Tucson, AZ 85708

DSN:
Comm: (520) 670-6546
Cell: (520) 237-8462
E-mail: m.e.vaughan@dhs.gov

Mr. Patrick Welch
ANG/SCA
1411 Jefferson Davis Hwy
Arlington, VA 22202-3231

DSN: 327-2114
Comm: (703) 607-2114
Cell:
E-mail: pat.welch@ngb.af.mil

Mr. Michael Weppner
Apogen Technologies, Inc.
7918 Jones Branch Dr., Suite 400
McLean, VA 22102

DSN:
Comm: (703) 752-6505
Cell: (703) 599-8827
E-mail: mike.weppner@apogen.com

Lieutenant Edward Wineland
129 RQS
Moffett Federal Airfield, CA

DSN:
Comm: (650) 603-9350
Cell: (408) 660-7477
E-mail: edward.wineland@camoff.af.mil

Mr. Wayne York
NM State Aviation Div
2502 Clark-Carr Lp SE
Albuquerque, NM 87106

DSN:
Comm: (505) 244-1788
Cell: (505) 490-1587
E-mail: wayne.york@nm.us