

“A little more pull, a little power. Standby boards -- boards!”

Monitoring the Air Show Experience

The Annual MT Air Show Guide

By Larry Van Horn, MT Assistant Editor, N5FPW

If that bit of chatter above sounds familiar to you, then chances are you have monitored communications at a military air show sometime in the past. And when you canvass military radio hobbyists from around the world, one of their favorite monitoring activities, hands down, is monitoring air show communications.

Nothing stirs up the aircraft enthusiast's juices more than these two magical words – *Air Show!*

Every year, from March through November, thousands hit the road to watch the action, as military and civilian aero teams put their aircraft through the paces to entertain and perform.

While there is nothing quite as thrilling as going out to one of these public air shows and watching the military or civilian demonstration teams strut their stuff in front of thousands of aircraft fanatics, you can add to the visual experience by monitoring the performing teams' radio communications. With a radio scanner in hand, you will experience a whole new perspective of the show that few attendees will realize or enjoy.

Since the new 2009 air show season starts in the second week of March, we here present our annual *MT Milcom Air Show Guide*, giving you the frequencies to monitor, the recommended list of air show radio equipment, and the major military flight demonstration team schedules for the upcoming air show season.

On a personal note, it is really hard for me to believe that you are reading the 10th annual *Monitoring Times Milcom Air Show Guide* here in the pages of *MT*. What started out as an answer to a question by a reader of the *Milcom* column ten years ago, has grown into one of the most eagerly anticipated features in this magazine each year -- and for good reason.

Where do you hear the action?

From time to time, frequencies for air show teams do change, so it's important to know where to search for potential new frequencies. When the U.S. Navy Blue Angel flight demonstration team made some major changes back in 2004, seasoned veterans knew the right bands to target to look for the new frequencies being used.

Last year, we saw major changes in the VHF frequencies used by the famed U.S. Air Force Thunderbirds. Again, thanks to veteran monitors who knew where to monitor, we were the first to report on our *Milcom Monitoring Post* blog the major frequency changes used by the boys in Blue in 2008.

Just like the veterans, if you concentrate on the bands listed below, you should be able to locate most air show activity at the show you are attending (all frequencies in this article are in MHz unless otherwise indicated).

118.000-137.000	25 kHz search steps (AM mode) Note: We have reports of a lot of new air show activity in the new portion of the civilian aero band – 136-137 MHz. Be sure to check out this frequency range out for civilian and military demo aircraft communications
122.700-123.575	25 kHz search steps (AM)
138.000-144.000	12.5 kHz search steps (AM/ Narrowband FM)
148.000-150.800	12.5 kHz search steps (AM/ NBFM)
225.000-380.000	25 kHz search steps (AM)
406.100-420.000	12.5 kHz search steps (NBFM)

U.S. Navy Blue Angels

The U.S. Navy (USN)/Marine Corps (USMC) military team is represented on the air show circuit by the Blue Angels flying their F/A-18 Hornet aircraft.

A Blue Angels flight demonstration exhibits the skills possessed by all naval aviators. It includes the graceful aerobatic maneuvers of the four plane Diamond Formation, in concert with the fast paced, high performance maneuvers of its two Solo Pilots. At the close of every show, the team illustrates the pinnacle of precision flying, performing maneuvers locked as a unit in the renowned, six jet Delta Formation.

The team is home based at Forrest Sherman Field, Naval Air Station Pensacola, Florida. However, the squadron does spend January through March each year training pilots and new team members at the Naval Air Facility in El Centro, California.

The Blue Angels are scheduled to fly 67 air shows at 34 air show sites in the United States and Canada during the 2009 season, as the team celebrates 23 years of flying the F/A 18 Hornet. Since its inception in 1946, the Blue Angels have performed for more than 450 million fans.

The other major piece of hardware in the squadron is their C-130 Hercules transport aircraft, affectionately known as “Fat Albert.” It is the only Marine Corps aircraft permanently assigned to support a Navy squadron and is flown by an all Marine Corps crew of three pilots and five enlisted personnel. “Fat Albert” flies more than 140,000 miles during the course of a show season.

After coping with a multitude of frequency changes during the 2004 season, the 2008 season was relatively stable and quiet for the Blue Angels. The primary AM mode UHF frequencies monitored during last season include:

Blue Angel Frequencies

Frequency Usage

-----	Pensacola (KNPA) frequencies < Channels 1-7>
-----	Show Site frequencies < Channels 11-15>
237.800	Solos < Channel 8>
250.975	Diamond (new in 2008)
255.200	Circle and arrivals discrete < Channel 17>
275.350	Diamond < Channel 9>
284.250	Show Box/Delta < Channel 16>
289.800	Aerial Refueling
289.900	Aerial Refueling
305.500	Fat Albert “Bert” Primary/Solos (West Coast) < Channel 10>
346.500	“Checklist Freq” – Pre-show checklist, ground star/, roll out, and maintenance < Channel 18>

During the 2005 show season, the Blues started using a new ground cart for show communications. Two new narrowband FM splinter frequencies/designators were found in use: 139.8125 < Bravo/Channel 3> and 142.6125 < Alpha/Channel 3A>. In 2007, another possible new NBFM frequency was reported: 141.5625



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MHz <Charlie>.

Although we believe that the older 162-174 MHz Blue Angel FM LMR frequencies are no longer being used, I have not deleted them from this list, as some West Coast monitors claim that some of them were still being used as late as 2007.

I encourage those of you with Signal Stalker® and Close Call® capability to watch the LMR spectrum from 138-144 MHz closely for new additional 12.5-kHz splinter frequencies being used by the team's ground crews.

Additional Blue Angel Frequencies

Cross Country Air-Air

138.250 143.600 237.800 238.150
275.350 284.250 303.000 (AM)

Maintenance/Ground communications [Old communications comcart/ground frequencies] (NBFM)

140.100 142.000 143.600 163.000
164.900 165.225 167.500 167.800
168.900 169.400 170.900

Tower-Comm Cart (May no longer be used)

173.825 (NBFM)

Tower Observer 143.000 (AM)

UHF frequencies not reported in recent seasons

236.450 249.625 251.600 254.500
256.250 262.850 263.350 264.350
264.550 265.000 273.300 286.000
299.650 302.100 (Fat Albert Secondary)
302.150 307.700 381.000 (AM)

U.S. Air Force Thunderbirds

The premier U.S. Air Force (USAF) flight demonstration team is known as the Thunderbirds. The big changes to this year's guide include a host of new frequencies used by the team during the 2008 air show season.

2009 marks the 56th season that the T-Birds have performed air shows and this year they will conduct more than 73 shows in the United States, Puerto Rico and the Far East.

The Thunderbirds recently completed a swap of their older F-16 Block 32 Fighting Falcon aircraft for more advanced and powerful F-16 Block 52 airplanes that will debut this season. They will perform formation flying and solo routines. The four aircraft diamond formation demonstrates the training and precision of Air Force pilots, while the solos highlight the maximum capabilities of the F-16. The pilots perform approximately 30 maneuvers in a demonstration. The entire show, including ground and air, runs about an hour and 15 minutes.

As mentioned above, the Thunderbirds used eight new VHF/UHF frequencies that have been included in our list below.

USAF Thunderbird Frequencies

Frequency Usage

139.8000* Thunderbirds <Victor 1> (AM)
paired w/148.850

139.2250* Thunderbirds <Victor 1> (AM) West Coast

140.4000 Support "T-Bird Ops"/Cross country air-to-air

140.7000* Reported at Canadian air show and cross country in northern U.S. <Victor 1>

141.8250 Alternate Diamond <Victor 2>

143.2500* Pre-Engine Start

143.7000* Diamond and Delta formations <Victor 1> (AM) paired w/150.150

148.1250* Thunderbirds <Victor 1> (AM)

Georgia near end of the season

148.8500* Alternate Diamond <Victor 2>
paired w/139.800

150.1500* Alternate Diamond <Victor 2>
paired w/143.700

225.1750* Thunderbirds <Uniform 1> (AM)

Georgia near end of the season

235.2000 Thunderbird Control/ComCart/
Cross Country (AM)

235.2500 Pre-Engine Start and Solo aircraft
on/off show center/ linked to PA
system (AM) <Uniform 1>

322.9500 Engine Starts/Solo aircraft (5-6)
Air-Air (AM) <Uniform 2>

*indicates a new frequency used in 2008

Maintenance/Ground teams (NBFM)

216.725 Announce PA feed - Music and show
narration <Channel 55>

216.975 Team air show frequency feeds/
mix - air-to-air simulcast <Channel
60>

413.275 Ground Maintenance Analog (DCS
431)

413.325 Ground Maintenance Analog (DCS
503)

There are other 216 MHz frequencies that are transmitted from the T-Bird Comm cart using Comtek gear which are interesting to monitor. You can get a complete Comtek bandplan link for that frequency range in our internet resource guide printed in this month's *Milcom* column. If you don't hear the cart on the frequencies that I have identified above, do a search using the frequency chart listed in the Comtek link.

Previously used frequencies used by the team are listed below. If you hear any of these frequencies in 2009, please let us know at the email address in the masthead.

Aero

141.8500 (Pre-take/Four ship/Diamond formation linked to PA system/Cross country air-to-air <Victor 2>); 143.8500 (Diamond formation/Cross country air-to-air <Victor 1>); and 235.0250 (Unknown usage)

VHF

142.175 and 143.900 (appear to have been replaced by the 413 MHz frequencies noted in our list above); 142.5750 (Program audio/ Air-Ground communications)

UHF

216.775 (Announce PA feed - show narration <Channel 56>); 413.000 (P25); 413.025 (Analog channel 1); 413.100 (Analog chan-



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nel 2); 413.250 (Analog); 413.350 (P25); 413.375 (P25); 901.500 (Comm Cart Headset); 905.350 (Comm Cart Headset)

Other US DoD Military Flight Demo Teams

In addition to the two units mentioned above, the Navy and the Air Force also have other flight demonstration units. Other branches of the Department of Defense (DoD) and David Shultz air shows (one of the premier air show companies) use a wide variety of VHF and UHF frequencies during air shows.

VHF frequencies to watch for air show activity include:

138.150	138.200	138.250	138.500
138.550	138.575	138.600	138.625
138.675	138.750	138.825	138.950
139.000	139.225	139.300	139.525
139.600	139.700	139.900	140.200
140.300	140.500	141.150	141.250
141.300	141.400	141.550	141.600
141.650	141.950	142.300	142.600
142.700	142.800	142.900	143.000
143.150	143.200	143.250	143.550
143.600	143.625	143.700	143.750
143.825	148.125	148.150	149.000
150.150	150.250	150.300	MHz

UHF frequencies to watch for air show activity include:

225.175	226.425	227.675	228.575
229.175	230.150	235.125	238.350
238.575	245.250	252.125	255.150
259.375	265.950	266.250	271.750
273.375	281.850	294.525	298.350
308.075	316.225	326.900	328.075
335.750	341.650	348.500	356.950
364.050	371.800	372.075	379.375 MHz

Some of the frequencies recently reported for these organizations are listed below. (AM mode is used for all the frequencies listed below unless otherwise indicated.)



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US MILITARY FLIGHT DEMO TEAMS

Air Force ACC A-10 Thunderbolt demonstration teams

East Coast – 23 Wing based at Moody AFB, GA will pick up the demo duties in 2009

West Coast – 355 Wing based at Davis Monthan AFB, AZ

122.475	123.150	123.475	136.575	138.050	138.100	138.200
138.250	138.300	138.475	138.500	139.900	139.625	136.675
139.725	139.800	139.975	140.400	141.675	142.200	225.500
236.850	251.200	269.900	283.700	305.400	327.700	341.500
343.000	343.000	376.025	384.550			

Air Force ACC F-15E Strike Eagle

East Coast – Demonstration team based 4th FW Seymour-Johnson AFB, NC

West Coast – The 366th Wing at Mountain Home AFB in Idaho will stand up another Strike Eagle Demo Team in 2009. Watch the following frequencies for activity:

123.150	298.300	376.025	384.550
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Air Force ACC F-16CJ Viper demonstration teams

East Coast – Shaw AFB, SC

West Coast – Hill AFB, UT

136.575	136.675	365.700	376.025	283.700	376.025	384.550
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Air Force ACC F-22A Raptor flight demonstration team

1st FW Langley AFB, VA

238.900	290.225	292.700	376.025	387.200
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Air Force ACC Heritage Flight

118.500 (Air/Air)	122.475	123.150	123.425	123.450	127.150
136.575	136.675	238.150	282.800	376.025	384.550

Air Force AETC T-6 Texan East Coast Team (disbanded in 2006)

Air Force B-1B Bomber Flyover 238.150

Air Force B-2 Bomber Flyover/Static displays – 509BW Whiteman AFB, MO

290.225	335.550	370.900	388.850
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Air Force B-52 Bomber Flyovers 376.025

Air Force Combat search and rescue (SAR) demonstrations

127.150	138.100	139.700	225.450	236.000	242.000	251.900
252.800	259.000	278.800	280.500	282.800	287.500	381.000

Air Force F-15C Eagle flight demonstration team – Eglin AFB, FL

Air Force F-117 Stealth flight demonstration team (aircraft longer in service)

Army Aviation Heritage Foundation 123.450 234.500 242.400

Army Blackhawk Demo 30.40 (PL 151.4 Hz) 46.850 242.400 (Primary) (NBFM)

Coast Guard aircraft/SAR demonstrations

122.900 (SAR)

157.050 (Drug Interdiction demo - NBFM)

157.075 (Command Post -NBFM)

237.900	282.800	326.150	345.000 (Demo)	379.050
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Coast Guard HITRON interdiction demo 157.050 (NBFM)

David Shultz Air Shows (Civilian company)

118.700 (Ground Ops)

132.950 (Operations)

135.650 (Airboss)

238.150 (Airboss)

350.300

Maine Corps AV-8B II flight demonstration teams (frequency information is needed for these units)

East Coast – MCAS Cherry Point, NC

West Coast – MCAS Yuma, AZ

Navy F/A-18C Hornet flight demonstration teams (frequency information is needed for these units)

East Coast – NAS Oceana, VA

West Coast – NAS Lemoore, CA

Navy F/A-18F Super Hornet flight demonstration teams (frequency information is needed for these units)

East Coast – NAS Oceana, CA

West Coast – NAS Lemoore, CA

Navy LCAC comms 40.400 (NBFM)

Navy Light Amphibious Vehicle comms 30.000 (NBFM)

Navy S-3 Viking aircraft demonstrations (aircraft longer in service)

Navy SAR demonstrations

242.500	282.000	283.100
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DoD Military Parachute Demonstration Teams

The premier DoD military parachute team on the air show circuit is the **U.S. Army Golden Knights** based out of Fort Bragg, North Carolina. The team aircraft used during air shows is either the C-31A Friendship or UV-18A Twin Otter.

Look for their communications on the often reported frequencies of 122.775, 123.400, 123.475, and 123.500 MHz. You should also keep the following plugged into your scanner for possible GK team activity: 32.300 32.400 122.575 124.875 126.200 238.000 284.900 and 367.700 MHz. Also watch for a possible new VHF frequency of 142.800 MHz for Golden Knight radio activity in the near future.

The U.S. Army actually has more parachute teams than just the Golden Knights. The U.S. Army Special Operations Command parachute team is known as the **Black Daggers** (see *MT Milcom* May 2004). Several frequencies have been uncovered for them during the last four seasons, including: 123.450, 136.000, 136.500, 138.650, 237.300, 238.150 MHz.

Another Army parachute outfit is the **Silver Wings**. This is the Fort Benning, Georgia, Command Exhibition Parachute Team. They have been monitored on 34.650 and 44.900 MHz. However, both these frequencies were common landing zone frequencies in the area they were performing in, so if neither of the two frequencies above is heard at a performance you attend, I suggest you initiate a rigorous search of the VHF-low band frequencies.

In addition to the VHF low band frequencies mentioned above, ground and safety personnel associated with this team have been heard using 467.6125 MHz (FRS channel 10/GMRS) for communications. There was also one report that the team was using an Intra Squad radio frequency of 397.500 MHz. See our comments below about programming ISR, GMRS and FRS channels for air show monitoring.

The U.S. Army has several more teams, but we still do not have frequency information for them. We would appreciate communication reports on the following U.S. Army teams if you catch them performing this air show season:

All American Free Fall Team (82nd Airborne) – Fort Bragg, North Carolina

Green Beret Parachute Team – Fort Bragg, North Carolina

Black Knights – US Military Academy, West Point, New York

The U.S. Special Operations Command has a team based out of MacDill AFB in Florida. They have been heard on the following frequencies: 122.450 123.450 and (no, this is not a misprint) 151.625 MHz, a nationwide business itinerant frequency.

During the 2007 show season, the U.S. Air Force Academy Parachute Team **Wings of Blue** was reported. Two frequencies were reported: air-to-ground jump coordination frequency on 121.950 MHz (AM) and 407.500 MHz (NBFM).

We have now also confirmed the frequency for the **Screaming Eagles** (101st Airborne Division) Parachute Team, based out of Fort Campbell, Kentucky – 44.200 MHz (NBFM).

And last, but not least, the colorful U.S. Navy Seal Parachute Team, known as the **Leap Frogs**, are frequent visitors around the country at various sporting events and air shows. This team has been regularly reported on 270.000 (AM) and 407.500 MHz (NBFM 131.8-Hz PL tone) nationwide over the last several years.



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GMRS Frequencies

During the 2001 and 2002 seasons, I received several reports that the Golden Knights were using GMRS (General Mobile Radio Service) frequencies 462.625, 467.5625, and 467.6125 MHz. In addition to hearing air show demo crews, monitors have found vendors and other military ground units using GMRS frequencies. You should make these frequencies part of your scanner load-out prior to the air show.

A	B	C
462.550	467.550	462.5625
462.575	467.575	462.5875
462.600	467.600	462.6125
462.625	467.625	462.6375
462.650	467.650	462.6625
462.675	467.675	462.6875
462.700	467.700	462.7125
462.725	467.725	

*(462.675/467.675 National Emergency Frequency pair)

Legend:

- A. Base station, Mobile relay, Fixed station, or Mobile station
- B. Mobile station, Control station, Fixed station operating in Duplex mode.
- C. Interstitial frequencies, base and portable simplex

Family Radio Service/Intra-Squad Radio Frequencies

We have also received several reports of the ground pyrotechnics personnel from the Tora Tora Tora and Warbirds flight demonstration team using FRS (Family Radio service) radios for communications during shows. You will also find military monitoring enthusiasts attending an air show using FRS radios to coordinate meeting fellow monitors. Load up FRS frequencies below (NBFM mode) in your scanner or carry a FRS radio to the show, and you might make a new Milcom monitoring friend or two.

462.5625 Ch 1	467.5625 Ch 8
462.5875 Ch 2	467.5875 Ch 9
462.6125 Ch 3	467.6125 Ch 10
462.6375 Ch 4	467.6375 Ch 11
462.6625 Ch 5	467.6625 Ch 12
462.6875 Ch 6	467.6875 Ch 13
462.7125 Ch 7	467.7125 Ch 14

The government version of the Family Radio Service is known as the Inter-Squad Radio or ISR. As noted above, I have seen several reports over the last few years that these radios might be in use at air shows by military units, including the Civil Air Patrol (CAP), see below. It might be a good idea to program these frequencies in your scanner as part of your air show load out.

396.8750 Ch 1	397.9500 Ch 8
397.1250 Ch 2	398.0500 Ch 9
397.1750 Ch 3	399.4250 Ch 10
397.3750 Ch 4	399.4750 Ch 11
397.4250 Ch 5	399.7250 Ch 12
397.4750 Ch 6	399.9250 Ch 13
397.5500 Ch 7	399.9750 Ch 14

U.S. Civil Air Patrol Frequencies

Finally, you should program U.S. Air Force Civil Air Patrol frequencies in your scanner as well. We have received field reports of CAP frequencies (repeater and simplex) being used as ground support at several air shows.

The CAP was in the process of transitioning to narrowband allocations/equipment during 2007. Though transition was to have been complete as of October 1, 2007, some regions have still not made the transition due to frequency conflicts. Therefore we have included both the old assignments as well as the new assignments (all these frequencies were found in the public domain).

CAP Frequencies (variety of modes)

Old assignments:

143.750 143.900 148.125 148.1375 148.150 148.5375
148.975 149.5375 MHz

New assignments:

138.0125 140.6375 142.2250 143.7250 143.9000 148.1750
148.7750 150.1625 150.5625 150.6375 MHz

Civilian/Foreign Air/Parachute Demonstration Teams

The Canadian Forces Snowbird aircraft demonstration team (431 Air Demonstration Squadron) is another regular on the U.S./Canada air show circuit. The following frequencies have been recently reported for this popular aerial team:

123.325 227.600 242.600 243.400 245.500 245.750 246.500
272.100 (Primary) 284.900 299.500 333.300 340.100 MHz

A new Snowbird VHF frequency has now been noted in use during the last three seasons: 116.000 MHz (AM): 243.400 and 272.100 are the only two UHF frequencies reported in 2005-7.

The Canadian Forces also have a CF-18 demonstration team. Brian "Check your Six" Topolski in Connecticut passed along these possible frequencies for that team:

128.9750 129.0250 130.0750 245.5000 263.5000 (Air/Air)
263.7000 264.6000 (East Ops) 274.4500 285.9750 312.5500
(Air/Air) 316.5500 333.3000 335.6000 340.2000 (West Ops)
341.7000

At most air shows, the military flight demonstration units aren't the only performers. Civilian organizations, companies, and individuals sponsor a wide variety of aerobatics teams and parachutists to thrill the crowd. Many different frequencies are used by these teams in the civilian aviation band. Load your scanner with the following frequencies and you shouldn't miss out on communications used by the civilian acts.

122.725 122.750 122.775 122.825 122.850 122.875 122.925
122.950 122.975 123.025 123.050 123.075 123.150 123.175
123.300 123.325 123.350 123.400 123.425 123.450 123.475
123.500 129.650 129.925 136.575 136.975

Some specific frequencies reported to us for other foreign military and US civilian flight demonstration teams are included in the list that follows:



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Civilian Flight Demonstration Teams

Aeroshell Aerobatics Team	123.150	
Aerostars CJ-6/YAK-52 Flight Formation Team	118.700	122.775
Air Force Reserve Biplane (Ed Hammil)	123.150	
All American Firebirds Flight Demonstration Team	122.775	
123.475		
American Four Jets Patriot	127.300	
Bud Light Air Force (ex- Coors Microjet)	122.925	123.350
123.475		
Chapman/Mancuso Aerobatics	136.975	
Civilian Air Show Discrete Common	123.150	
Dan Buchanan Hang Glider	123.150	128.675
Flight for Diabetes (Michael Hunter)	123.425	
Firecat (Rich Perkins)	123.500	
Flying Colors Hang Glider Aerobatic (Dan Buchanan)	123.300	
123.450 123.950		
Fowler Cary T-33 Aerobatics	123.150	
French Connection Air Show	122.925	122.975
129.975		
Geiko Extra 300 – Tim Webber	123.150	
Greg Koontz Super Decathlon Demo	123.150	
Ian Groom's FedEx Red Bull Aerobatic Team	122.725	122.775
122.825 122.925 123.150 123.350		
Iron Eagles Aerobatic Team	122.925	123.150
123.475		
John Klatt	120.600	123.475
Julie Clark's US of Air	118.700	120.600
L39 Patriots	127.300	
Lima Lima Flight Team	123.150	123.175
123.425 123.575		
Manfred Radius Glider Aerobatics Team	123.150	
North American Jet Air Show Team	122.775	122.925
129.650 129.925		
Northern Lights Aerobatic Team	123.325	136.975
Oreck Vacuum Cleaners Aerobatic Demo (Frank Ryder)	122.825	
123.425 123.450		
Otto the Helicopter	123.150	123.300
Patty Wagstaff Air Shows Inc	122.750	123.475
Pitts Special U.S. Air Force Reserve	123.150	
Rayban Gold Aerobatics Team	122.925	
Red Baron Stearman Squadron	122.725	122.775
123.150		
Red Bull Air Race-Michael Goulian	135.075	
Red Eagles Flight Demo Team	120.600	123.150
123.425 123.475		
Sean Tucker Power Aerobatics	118.700	122.875
122.950 123.150 123.450 123.475		
SIAI Marchetti SF260 Debbie Gary	123.150	
Showcopters	123.150	134.700
Sky Soldiers Demonstration Team (Army Aviation Foundation)	118.700	
123.025 234.500 242.400		
Skytypers Team	122.750	122.775
123.425 (Formation) 122.7750 123.150 123.425 123.450 (Solos)		

Swift Magic Aerobatic Team	122.775	122.925
Team Aeroshell	123.150	
Team Red	123.350	
Tora Tora Tora Warbirds Team (Commemorative Air Force)	118.750 122.850 122.875 123.150 123.450 469.500 469.550	
Foreign Military Flight Demonstration Teams		
Asas de Portugal, Esquadra 103 (Wings of Portugal 103 Squadron) Flight Team	262.150	
Battle of Britain Memorial Flight (BBMF) (UK)	120.800	122.700
Black Cats Royal Navy Helicopter Display Team (UK)		280.475
Blue Eagles Royal Army Air Corps Flight Team (UK)		135.950
135.975 136.975 382.000		
Blue Tango Helicopters	123.600	
Brazilian Air Force Team (Brazil)	130.550	130.650
132.250		
Brazilian Smoke Squadron (Brazil)	133.450	
British Army Red Devils Parachute Team (UK)	462.625	
Canadian Forces CF-18 Hornet Team (Canada) Frequencies are needed		
Canadian Forces Skyhawks Parachute Jump Team (Canada)	123.000	
294.700		
Falcons Royal Air Force Parachute Jump Team (UK)		255.100
256.900 465.100		
Frecce Tricolori Military Flight Team (Italy)		
123.475 (Ground Secondary)		
140.600 (Ground Primary)		
362.625 (Primary)		
263.250 (Secondary)		
307.800 Unknown		
Grasshopper Helicopter Team (Netherlands)	281.100	
Halcones Military Flight Team (Chile)	136.175	
La Patrouille Adecce Air Force Flight Team (France)		
121.850 123.600 138.450 141.825 143.100 143.850 242.650		
243.850		
La Patrulla Aguila Military Flight Team (Spain)	130.500	252.500
337.975		
Le Royal Jordanian Teams (Jordan)	123.500	
Les Breitling (Switzerland)	127.350	
Les Iskry (Poland)	123.600	
Marche Verte [Green March] (Morocco)		
135.000 135.925 (Ground)		
135.500 (Air-to-Air)		
Midnight Hawks Finnish AF Academy Demo Team (Finland)	140.625	
Patrouille Suisse Military Flight Team (Switzerland)		266.175
288.850 388.075		
Red Arrows Royal Air Force Flight Team (UK)	242.200	243.450
253.450		
Team Guinot Formation Wing Walkers (UK)	118.000	
Turkish Stars Military Flight Team (Turkey)	225.750	264.400
279.600		
Yak Aerostars Team (UK)	122.475	122.950
123.350 124.450		

In Closing

It is always difficult to predict what a new season will bring, so I strongly encourage readers to watch my *Milcom Blogspot* and the *Monitoring Times* home page for any late breaking news and frequency information during the 2009 air show season. You'll find the schedule for these airshows (as of press time) printed in the *Milcom* column on page 54.

If you attend an air show in 2009 and you find this article useful, please pass along any frequencies that you monitor, whether it is already on our list or not. Our goal each year is to have a report from every major air show at which a military team performs. This will greatly aid in the production of the next year's listing. You can reach me via our snail mail address at *MT Milcom*, 7540 Highway 64 West, Brasstown, NC 28902 or via e-mail at larryvanhorn@monitoringtimes.com.

Finally, I would like to extend a sincere thanks to the hundreds of contributors who took the time last year to share their post-show reports with us. I deeply appreciate the time and effort each of you took to let us know what you have heard at many of the air shows in 2008 and I look forward to reading and hearing about about what you intercept this year.

Now, break out those scanners, plug in those frequencies, and get ready for the ride of a lifetime – a front row seat at the air show!

"Blue Angel Delta - Stand by Boards — Boards!"

MT

Scanner Dan on the beach (David Gifford)



Monitoring the Air Show Experience

MT Air Show Equipment List

By Larry Van Horn, N5FPW

Now that you know who are the crack military flight demonstration teams and where to find the frequencies they use for air-ground coordination and other communications, we turn to another important consideration for successful monitoring: what equipment is required to listen in.

I am frequently asked which scanner I recommend for air show monitoring. While I don't have a favorite, I have prepared the list in the table below as a purchase guide of receivers that meet all the requirements as outlined below.

Not Just Any Old Scanner Will Do

Some scanners currently being marketed and most older scanners on the used market are *not* suited for air show monitoring. There are certain requirements your air show radio has to meet in order to successfully monitor the two major military aerial demonstration teams – the Blues and T-Birds.

If you are going to a Thunderbird show, you will need a scanner that can monitor the 138-150 MHz military land mobile band in the AM mode. Most of the older Uniden scanners cannot be used for air show monitoring due to their lack of independent transmission mode selection.

You also need a scanner that has the 225-400 MHz military aeronautical band in it. Most of the action (especially for the Blues) will be heard in this military UHF portion of the spectrum. Adding this criterion to the mix of possible radios narrows down our choice for air show scanners even further.

Information below includes current Grove Enterprises stock codes/prices (if carried by Grove) for the items indicated, but the price does not include shipping or taxes (if applicable). Prices are subject to change without notice, so be sure to call the Grove order department at 800-438-8155 or visit the Grove website at www.grove-ent.com for current pricing.

Air Show Listening Tip

If you are going to use a handheld scanner at the air show, there is another purchase you should consider: an extra set of charged batteries. Murphy's Law applies here and nothing is worse than having your batteries die halfway through the show with no replacements.

MILITARY AIR SHOW CAPABLE RECEIVERS

Note: Prices and availability subject to change without notice and you should call or visit the Grove website for the latest updates. This list is for reference purposes only. Radio listed with n/a are not available from Grove but are still being sold new from other MT advertisers such as Universal Radio.

Handheld Units

	Grove Stock No	Price
Alinco DJ-X3T	n/a	\$302.95
Alinco DJ-X7	SCN03	\$179.95
Alinco DJ-X30T	n/a	\$239.00
Alinco DJ-X2000T	n/a	\$769.95
AOR AR-8200 MK IIIB	SCN51	\$599.95
AOR AR-Mini B	n/a	\$299.00
GRE PSR-300	SCN13	\$199.95*
GRE PSR-500	SCN18	\$499.95***

Icom IC R-5 Sport	SCN12	\$174.95
Icom IC R-20	SCN20	\$539.95
Icom IC-RX7	n/a	\$364.00
Uniden BCD-396T	SCN47	\$499.95***
Yaesu VR-120D	n/a	\$180.00
Yaesu VR-500	SCN06	\$219.95

Base/Mobile Units

AOR AR-5000A+3B
AOR AR-8600 Mk IIB
GRE PSR-400
GRE PSR-600
Uniden BCT-15
Uniden BCD996T
Yaesu VR-5000

Grove Stock No. Price

RCV44P	\$2,569.95
SCN11	\$889.95
SCN14	\$199.95*
SCN19	\$499.95***
SCN15	\$229.95*
SCN48	\$499.95***
n/a	\$219.08

Computer Receivers

Icom PCR-1500
Icom IC-R1500
Icom PCR-2500
Icom IC-R2500
WinRadio WR-G305e
WinRadio WR-G305i
WinRadio WR-G305e/PD
WinRadio WR-G305i/PD
WinRadio WR-G315e
WinRadio WR-G315i
WinRadio WR-3150e
WinRadio WR-3150i-DSP
WinRadio WR-3500e
WinRadio WR-3500i-DSP
WinRadio WR-3700e
WinRadio WR-3700i-DSP

Grove Stock No. Price

RCV15	\$499.95
RCV25	\$599.95
RCV35	\$729.95
RCV52	\$899.95
RCV63	\$619.95**
RCV53	\$519.95**
RCV63P	\$719.95**
RCV53P	\$619.95**
RCV64	Contact Grove for pricing**
RCV54	Contact Grove for pricing**
RCV48-E	\$1,849.95*
RCV48-I	\$1,849.95*
RCV49-E	\$1,995.95*
RCV49-I	\$2,195.95*
RCV50-E	\$2,895.95*
RCV50-I	\$2,895.95*

Professional Receivers

AOR AR-Alpha	RCV01
AOR AR-One	RCV12
AOR AR-One-C	RCV13-G
AOR SR-2200	n/a
Icom R-8500	n/a
Icom R-9500	RCV27

Grove Stock No. Price

\$10,299.95	
\$4,699.96	Not available in a consumer version
\$5,199.95	Not available in a consumer version
\$1,299.00	Not available in a consumer version
\$2256.00	Not available in a consumer version
\$13,500.00	

Discontinued radios/scanners that are capable of air show monitoring

Alinco	DJ-X2T, DJ-X10T
AOR	AR-16B, AR-1000, AR-1500, AR-2515, AR-2700, AR-3000AB, AR-5000+3B, AR-7000B, AR-8000, AR-8200B, AR-8600B
Icom	IC-R1, IC-R2, IC-R3, R10, R100, R7000, R7100, PCR-100, PCR-1000
Kenwood	RZ-1
Radio Shack	Pro-2004, Pro-2005, Pro-2006, Pro-43
Uniden	BC-296*, BR-330T*, BC-796***
WinRadio	WR-1000i/e, WR-1500i/e, WR-3000i-DSP, WR-3100i-DSP
Yaesu	VR-120

* includes trunk capability

** Includes APCO-25 digital decoder

***Includes APCO-digital/trunk capability



Air Show Specials!

Handheld Unit	Stock No	Price
Alinco DJ-X7	SCN03	\$CLICK HERE!
Alinco DJ-X2000T	SCN10	\$CLICK HERE!
AOR AR-8200 Mk III	SCN51	\$CLICK HERE!
GRE PSR-500	SCN18	\$CLICK HERE!
Icom IC R-20	SCN20	\$CLICK HERE!
Icom IC R-5 Sport	SCN12	\$CLICK HERE!
Uniden BCD-396T	SCN47	\$CLICK HERE!

Base/Mobile Unit	Stock No.	Price
AOR AR-5000A+3B	RCV44P	\$CLICK HERE!
AOR AR-8600 Mk IIB	RCV11	\$CLICK HERE!
GRE PSR-600	SCN19	\$CLICK HERE!
Uniden BCT-15	SCN15	\$CLICK HERE!
Uniden BCD996T	SCN48	\$CLICK HERE!

Computer Receivers	Stock No.	Price
Icom PCR-1500	RCV15	\$CLICK HERE!
Icom IC-R1500	RCV25	\$CLICK HERE!
Icom PCR-2500	RCV35	\$CLICK HERE!
Icom IC-R2500	RCV52	\$CLICK HERE!
WinRadio WR-G305e	RCV63	\$CLICK HERE!
WinRadio WR-G305i	RCV53	\$CLICK HERE!
WinRadio WR-G305e/PD	RCV63P	\$CLICK HERE!
WinRadio WR-G305i/PD	RCV53P	\$CLICK HERE!
WinRadio WR-G315e	RCV64	Call for pricing
WinRadio WR-G315i	RCV54	Call for pricing
WinRadio WR-3500e	RCV49-E	\$CLICK HERE!
WinRadio WR-3500i-DSP	RCV49-I	\$CLICK HERE!
WinRadio WR-3700e	RCV50-E	\$CLICK HERE!
WinRadio WR-3700i-DSP	RCV50-I	\$CLICK HERE!

Professional Receiver

AOR AR-Alpha Not available in a consumer version.

AOR AR-One Not available in a consumer version

Shipping/ Handling Charges

Total Order	Shipping Charges
\$1-\$29.99	\$3.00
\$30-\$49.99	\$6.95
\$50-\$99.99	\$8.95
\$100-\$399.99	\$12.95
\$400-\$899.99	\$16.95
\$900-\$1499.99	\$20.95
\$1500-\$1999.99	\$24.95
\$2000-\$2499.99	\$28.95
\$2500+	\$32.95



Established in 1979 by well-known communications expert Bob Grove, Grove Enterprises has become a world leader in radio monitoring equipment, accessories, and publications.

If you decide you don't like a product, Grove Enterprises doesn't penalize you for it. There is NO restocking fee so long as you call our toll free number for a return authorization within fifteen days of shipment and the item is returned in new condition. Once the item is received we will give you credit toward another item or issue a full refund (less shipping charges). Software cannot be returned if opened.

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ANTENNAS & CABLES

Grove Hidden Flex-tenna	ANT49	\$CLICK HERE!
Austin Condor	ANT 14	\$CLICK HERE!
Grove Scanner Beam II	ANT 18	\$CLICK HERE!
Procomm CD144M/BN mag mount antenna	ANT50	\$CLICK HERE!
AOR DS3000A DISCONE ANTENNA	ANT 52	\$CLICK HERE!
800 MHz for handhelds	ANT 22	\$CLICK HERE!
800 MHz base w/ right-angle conn.	ANT 23	\$CLICK HERE!
OMNI II Scanner	ANT 5	\$CLICK HERE!
Grove Flex-tenna HVU	ANT45	\$CLICK HERE!
Grove Flex-tenna VU	ANT46	\$CLICK HERE!
Professional Wideband Discone	ANT 9	\$CLICK HERE!
Scantenna + 50' coax	ANT 7	\$CLICK HERE!
Nil-jon Multiband base antenna	ANT10MBS	\$CLICK HERE!
Nil-jon Mobile antennna w/ NMO mount	ANT10NMO	\$CLICK HERE!
AOR DA3000 Aerial Discone	ANT 11	\$CLICK HERE!
AOR MA500 Wide Range	ANT 12	\$CLICK HERE!
AOR SA7000 super-wide receiving	ANT 39	\$CLICK HERE!
WinRadio AX-07B flexible VHF/UHF antenna	ANT47	\$CLICK HERE!
WinRadio AX-91M magnetic antenna base	ANT48	\$CLICK HERE!
WinRadio WR-AX-31C		
Wide-band log periodic antenna	ANT58	\$CLICK HERE!
Grove Universal Telescoping Whip	ANT 6	\$CLICK HERE!
Nil-Jon Super-M Superior Mobile Ant.	ANT 10	\$CLICK HERE!
Create CLP51301N Log-Periodic Ant.	ANT 16	\$CLICK HERE!
Create CLP51302N Log-Periodic An.	ANT 17	\$CLICK HERE!
50' of RG-6U cable	CBL 50	\$CLICK HERE!
100' of RG-6U cable	CBL 100	\$CLICK HERE!

MISCELLANEOUS ACCESSORIES

UNIDEN UA-72 DC CORD	DCC 19	\$CLICK HERE!
Universal Cigarette Adaptor	DCC 3	\$CLICK HERE!
Ramsey Broadband Preamp	PRE 2	\$CLICK HERE!
Scancat Gold for Windows	SFT 2W	\$CLICK HERE!
Scancat Gold for Windows SE Upgrade	SFT 2SE	\$CLICK HERE!
Scancat-Lite Plus	SFT 19	\$CLICK HERE!
PAR VHF Intermod Filter 152MHz	FTR 152DS	\$CLICK HERE!
PAR VHF Intermod Filter 158MHz	FTR 158DS	\$CLICK HERE!
PAR VHF Intermod Filter 462MHz	FTR 462DS	\$CLICK HERE!
FM Trap Filter 88-108MHz	FTR-FMDS	\$CLICK HERE!
PAR NOAA Weather Filter 162 MHz	FTR 162DS	\$CLICK HERE!
Yaesu SP-8 Speaker	SPK 4	\$CLICK HERE!
GRE Superamplifier	PRE 1	\$CLICK HERE!
VS6 Mobile Speaker	SPK 7	\$CLICK HERE!



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MILITARY DEMONSTRATION TEAMS 2009 AIRSHOW SCHEDULE

Dates	Group: Locations	Website
March 14	BA: NAF El Centro, CA - El Centro Air Show 2009 https://www.cnmc.navy.mil/elcentro/airshow/index.htm	
March 17	TB: Creech AFB, NV - Creech AFB Air Show http://www.creech.af.mil/	
March 18-21	GK: Panama City, FL/South Padre Island, TX	
March 21-22	BA: Punta Gorda, FL - 2009 Florida International Air Show http://www.floridaairshow.com/	
March 28-29	TB: Luke AFB, AZ - Luke Days 2009 http://www.luke.af.mil/ BA/GK: Tyndall AFB, FL - Era of Airpower Air Show http://tyndall.schultzairstows.com/ TB: MacDill AFB, FL - MacDill Airfest 2009 http://www.macdill.af.mil/	
April 4-5	GK: Kill Devil Hills, NC BA/GK: Tuscaloosa, AL - Tuscaloosa Air Show http://www.ci.tuscaloosa.al.us/index.asp?NID=846 TB/GK: Keesler AFB, MS - Thunder on the Bay http://www.keesler.af.mil/	
April 18-19	BA/GK: NAS Corpus Christi, TX - NAS Corpus Christi Air Show 2009 http://www.airshownetwork.com/show.php?id=282	
April 25-26	TB/GK: Ceiba, PR - Puerto Rico Air Extravaganza BA/GK: Seymour Johnson AFB, NC - 2009 Wings Over Wayne http://www.wingsoverwaynearshow.com/ TB: Langley AFB, VA - AirPower over Hampton Roads http://www.langley.af.mil/ GK: Lakeland, FL - EAA Sun 'n Fun Fly-IN http://www.sun-n-fun.org/content/	
May 2	SB: CFB Moose Jaw, SK - 15 Wing Moose Jaw Air Show	
May 2-3	BA: NAS/JRB New Orleans, LA - Nawlins Air Show 2009 TB/GK: Robins AFB, GA - 2009 Robins Air Show http://www.robins.af.mil/ GK: Terre Haute, IN - Terre Haute Air Fair http://www.terrehauteairfair.com/	
May 6	SB: Wahpeton, ND - Snowbirds over Wahpeton 2009	
May 9-10	TB/GK: Branson, MO - Branson Air Show http://bransonairshow.com/ GK: Cape Girardeau, MO - Cape Girardeau Regional Air Festival http://www.capeairfestival.com/	
May 16-17	SB: Barksdale AFB, LA - Defenders of Liberty Open House & Air Show BA: MCAS Beaufort, SC - Blues Over Beaufort http://www.beaufortairshow.com/	

	TB/GK: Andrews AFB, MD - Joint Services Open House Air Show http://www.andrews.af.mil/ GK: Augusta, GA SB: MCAS Cherry Point, NC - MCAS Cherry Point Air Show BA/GK: NAS Patuxent River, MD - NAS Patuxent River Air Show 2009 TB/GK: Wantagh, NY (Jones Beach) - Bethpage Federal Credit Union New York Air Show at Jones Beach http://www.jonesbeachairshow.com/ SB: Rimouski, PQ - Rimouski Air Show 2009 TB: USAF Academy, CO - Air Force Academy Graduation Ceremony http://www.usafa.af.mil/index.cfm?catname=AFA%20Homepage
May 23-24	SB: Kingston, ON - Kingston Air Show BA/GK: Janesville, WI - Southern Wisconsin AirFEST http://www.swairfest.org/ TB: Ellsworth AFB, SD - Dakota Thunder http://www.ellsworth.af.mil/ and http://www.dakotathunder.com/index.html SB/GK: Rochester, NY - Rochester International Air Show BA/GK: Indianapolis, IN - Indianapolis Air Show http://www.indyairshow.com/ TB: Hill AFB, UT - Air Force Week/Hill AFB Open House & Air Show http://www.hillairshow.com/ and http://www.hill.af.mil/ GK: Rockford, IL - Rockford Air Fest SB: Portage, MI - Portage Air Show 2009 HF: Manitowoc, WI - Thunder on the Lakeshore (Manitowoc) SB: Sault Ste. Marie, ON BA: Denver, CO - Front Range Air Show '09 http://www.rmrfi.org/airshow.htm TB/GK: Ocean City, MD - OC Air Show http://www.ocairshow.com/ SB: CFB Bagotville, PQ - Bagotville International Air Show SB: Baddeck, NS - Baddeck Air Show BA: Pittsburgh, PA - Wings Over Pittsburgh http://www.wingsoverpittsburgh.com/ TB: Dover AFB, DE - Dover AFB Air Show http://www.dover.af.mil/ GK: Quad Cities, IA - Quad City Air Show http://www.quadcityairshow.com/ GK: Sanford, NC SB: St. Thomas, ON - Wings and Wheels Airshow SB: Orillia, ON - Orillia Air Show (fundraiser on behalf of the Community Foundation of Orillia and Area) BA/SB: North Kingstown, RI - Rhode Island National Guard Open House & Airshow TB/GK: Helena, MT - Helena Area Montana Military Open House and Air Show GK: Charleston, SC - Charleston AFB Air Expo GK: Dubuque, IA - Dubuque Air Show & Fireworks BA/GK: Binghamton, NY - Greater Binghamton Air Show TB: Battle Creek, MI - 2009 Battle Creek Field of Flight Air Show and Balloon Festival http://www.bcballoons.com/ SB: CFB Trenton, ON - 8 Wings Anniversary Weekend Air Display TB: Peoria, IL - Prairie Air Show® 2009 http://www.prairieair.org/ BA: Detroit, MI GK: Gary, IN - South Shore Air Show BA: Pensacola Beach, FL - Pensacola Beach Air Show http://www.visitpensacolabeach.com/what/airshow.asp SB: Peace River, AB - Peace River Regional Air Show TB/GK: Dayton, OH - Dayton Air Show 2009 http://www.usats.org/
May 27	
May 30-31	
June 6-7	
June 9	
June 10	
June 13-14	
June 17	
June 20-21	
June 24	
June 27-28	
July 3-5	
July 4-5	
July 10-11	
July 11-12	
July 18	
July 18-19	



DoD Photo

DEMONSTRATION GROUP ABBREVIATIONS

BA US Navy Blue Angels
GK US Army Golden Knights
HF Heritage Flight
SB Canadian Forces Snowbirds
SH Canadian Skyhawks
SW US Army Silver Wings
TB US Air Force Thunderbirds

ABBREVIATIONS

AFB Air Force Base
ARB Air Reserve Base
CFB Canadian Forces Base
EAA Experimental Aircraft Association
MCAS Marine Corps Air Station
NAF Naval Air Facility
NAS Naval Air Station
TBD To Be Determined

July 19 **SB:** Fort St. John, BC - 2009 Fort St. John Airshow
July 22 **TB:** Cheyenne, WY - Cheyenne Frontier Days Thunderbirds Air Show
<http://www.cfdrodeo.com/the%20celebration/more%20events/off-park/airshow.aspx>
SB: Airdrie, AB - Airdrie Air Show (Town Centennial Celebration)
July 25 **SB:** Lethbridge, AB - Alberta International Air Show
July 25-26 **BA:** Sioux Falls, SD - Power of the Prairie <http://www.siouxfallsairshow.com/>
July 29 **TB/GK:** Milwaukee, WI - Milwaukee Air Expo
<http://www.milwaukeeairexpo.com/>
August 1-2 **SB:** Prince George, BC - Prince George Air Show
BA: Seattle, WA - KeyBank Air Show at Seafair
<http://www.seafair.com/events/airshow/>
SB: CFB Cold Lake, AB - Cold Lake Air Show - Centennial of Flight
August 5 **SB:** Penticton, BC - Penticton Air Fair
August 7-9 **SB:** Abbotsford, BC - Abbotsford International Air Show
August 8-9 **BA:** Salinas, CA - California International Air Show
<http://www.salinasairshow.com/index1.htm>
TB: Vienna, OH (Youngstown ARB) - Youngstown Air Reserve Station Open House
August 15-16 **TB/GK:** Chicago, IL - Chicago Air and Water Show
SB: Saskatoon, SK - Canada Remembers International Air Show
August 19 **TB/GK:** Atlantic City, NJ - Thunder Over the Boardwalk
<http://www.atlanticcitynj.com/acaairshow.aspx>
August 22-23 **BA:** Fargo, ND - Fargo AirSho 2009 <http://www.fargoairsho.com/>
TB: Selfridge ANGB, MI - Selfridge Air Show
<http://www.selfridgeairshow.org/home.htm>
GK: Kansas City, MO - KC Aviation Expo
SB: St. Johns, NF
SB: Gaspe, PQ
August 26 **SB/SH:** Windsor, ON - Windsor International Air Show
August 29 **BA:** Offutt AFB, NE - Defenders of Freedom Air Show
<http://www.offuttairshow.com/>
August 29-30 **TB/GK:** Hillsboro, OR - Hillsboro Air Show <http://www.oregonairshow.com/>
SB: Brantford, ON - Brantford Air Show
September 2 **BA/SB:** Toronto, ON - Canadian International Air Show
September 5-7 **TB/GK:** Cleveland, OH - Cleveland National Air Show
<http://www.clevelandairshow.com/>
BA: NAS Fallon, NV - Fallon Air Show
September 11 **TB/GK:** Sacramento, CA - California Capital Air Show
<http://www.californiacapitalairshow.com/>
September 12-13 **SB:** Yarmouth, NS - Nova Scotia International Air Show
September 19-October 25 **TB:** Far East Tour - Note: At this point the cities in the Far East have not been finalized yet except for South Korea (Oct. 23-25)
September 19-20 **BA:** Reno Stead Fields, NV - Reno Air Races
<http://www.airrace.org/indexJS.php>
TB: Hickam AFB, HI - Hickam Air Show <http://www2.hickam.af.mil/>
SB/GK: Scott AFB, IL - Scott Air Show
September 26-27 **BA/GK:** Redding, California - Redding Air Show
<http://www.reddingairshow.com/>
SB: Colorado Springs, CO - In Their Honor Air Show
September 30 **SB:** San Diego, CA
October 2-4 **BA/GK/SB:** MCAS Miramar, San Diego, CA - MCAS Miramar Air Show
<http://www.miramairshow.com/>



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GK: Cocoa Beach, FL - Cocoa Beach Air Show
October 10-11 **GK:** Peachtree City, GA - The Great Georgia Airshow
October 10-12 **SB:** Sheppard AFB, TX - Sheppard AFB Air Show
BA: San Francisco, CA - Fleet Week San Francisco 2009
<http://www.military.com/fleetweek>
October 14 **SB:** NAS Pensacola, FL
October 17-18 **BA:** NAS Oceana, VA - 2009 NAS Oceana Air Show
<http://www.oceanairshow.com/>
GK/SB: Cape Canaveral/Kennedy Space Center, FL - Air-Space Expo
October 23-25 **TB:** Osan AB, Korea - Osan AB Air Power Day
October 24-25 **BA/GK:** Fort Worth, TX - Spirit of Freedom Air Show
<http://www.allianceairshow.com/>
GK: Pinehurst, NC
October 31-November 1 **BA/GK/HF:** Houston, TX - Wings Over Houston
<http://www.wingsoverhouston.com/>
November 7-8 **BA:** Jacksonville Beach, FL - Jacksonville Sea and Sky Spectacular
<http://www.coj.net/Departments/Recreation+and+Community+Services/Special+Events/Sea+and+Sky+Spectacular/default.htm>
November 13-14 **TB:** Homestead ARB, FL - Homestead Air Show
BA: NAS Pensacola, FL - NAS Pensacola Blue Angels Homecoming 2009
<http://www.airshownetwork.com/show.php?id=76>
November 14-15 **TB:** Nellis AFB, NV - Aviation Nation <http://www.nellis.af.mil/>

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- Utilities
- Marine and amateur (ham radio) bands
- Aero Bands: Civilian and Military
- Railroad



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