TRAFFIC BRIEFING FOR FLYING GLIDERS IN THE VICINITY OF RENO, NV

BACKGROUND & SUMMARY:

As glider pilots we share much of our airspace around Minden, Truckee, and Air Sailing with high speed traffic arriving and departing Reno International Airport. Subsequent to the mid-air collision between a Hawker corporate jet and a glider south of Minden in August, 2006, the FAA and NTSB requested PASCO come up with procedures for glider pilots to follow that will help make the airspace around Reno safer for ALL aircraft. These procedures were developed by a group of concerned pilots (both glider and power) working in conjunction with Reno TRACON and Oakland Center personnel with oversight and approval of the NTSB investigator responsible for investigating the mid-air.

Glider pilots flying in this area should become familiar with and practice the following procedures in order to increase our visibility to non-glider traffic in the vicinity. **Please help us keep our sport safe in some of the best soaring conditions in the world.**

Reno TRACON (called "Reno Approach" when you talk to them on the radio) is responsible for separation and sequencing of all aircraft within 20 NM of the Reno airport. Their radar is capable of seeing out an additional 20 NM, for a total of 40 NM. Reno Approach has **requested increased radio communication from glider pilots within 40 NM of Reno** to help them increase safety for all aircraft in the area. This briefing is designed to facilitate that communication.

Glider pilots should:

1) Become familiar with the standard Reno approach and departure routes as depicted on the attached briefing chart;
2) Become familiar with the "intersection" and VOR names and locations on the SF sectional chart (a list of these intersections and their coordinates are included at the end of this briefing) – these may be used by Reno Approach when communicating with power traffic;
3) Monitor the appropriate Reno Approach frequency when flying within 40 NM of Reno and in the vicinity of the approach and departure routes (126.3 in the north and 119.2 in the south);
4) Make it a habit to listen to the traffic advisory on Reno ATIS on 135.8 for runway in use and current altimeter setting BEFORE you enter this airspace and BEFORE you initiate communications with Reno Approach;
5) Become familiar and comfortable with communicating with both Reno Approach and Oakland center. That means to know and use proper radio terminology AND etiquette as well as becoming educated on how to LISTEN. Practicing on the ground with other pilots is highly recommended;
6) Make sure your transponder is turned on and set to 0440 before you launch. If you do not have a transponder in your glider and you frequently fly in this area, you should strongly consider getting one installed.

Procedures for Communicating with Reno Approach:

HIGH DENSITY TRAFFIC AIRSPACE: High speed air traffic (airliners and light jet aircraft) arriving and departing Reno-Tahoe International Airport will generally be flying along the approach and departure routes depicted on the attached chart. For the purpose of this procedure, we refer to the airspace along these routes and 10 miles on either side of these routes at the altitudes shown on the attached chart as "high density traffic airspace". This airspace can be defined in general as any altitude within 20 nm of RNO or above 10,000 feet between 20 nm and 40 nm of RNO. It is IMPORTANT TO NOTE that on clear days, traffic heading to RNO may be cleared for visual approach once they have the airport in sight. In that case, they will not necessarily be following these routes.

TRANSPONDERS: Gliders flying in the high density traffic airspace around Reno are encouraged to use an altitude encoding transponder squawking 0440. This is the code that has been established by letter of agreement with Reno TRACON as a standard code to identify gliders. This same code will also be used by tow planes any time they are trailing a tow rope behind them – with or without a glider attached to it!

TALK TO RENO APPROACH: Glider pilots should talk to Reno Approach when in high density air traffic airspace or about to enter that airspace. There are two frequencies to use to contact **Reno Approach: 126.3 in the north and 119.2 in the south**. These frequencies appear in a white box on current sectionals. The dividing line runs approximately through the Squaw Valley and Mustang VORs, or approximately parallel to I 80.

You will initially be making two calls: the first for contact, the second to convey your current situation and intentions. NOTES: ***1) Reno Approach has requested that we use ONLY airports that are shown on the sectional chart to reference our position. Radar screens in Reno Approach do not show geographic features like the Pine Nuts or Job's Peak, so do not use them as reference. 2) Make sure you LISTEN for several seconds before you key the mike to speak so you don't accidentally "step" on anyone already communicating with approach.***

Example:
RENO APPROACH, GLIDER Nnnn. *(use your N number NOT your tail letters)*
After Reno approach acknowledges, continue with the following:
GLIDER nnn NEGATIVE TRANSPONDER (or SQUAWKING 0440) TEN MILES EAST OF MINDEN CLIMBING THROUGH ONE-TWO THOUSAND, EXPECT ONE-SIX THOUSAND, WILL PROCEED SOUTHEAST.
When you leave the thermal and start to fly down the Pine Nuts (eg.) make a third call:
RENO APPROACH, GLIDER nnn, ONE-SIX THOUSAND, HEADING SOUTH, FREQUENCY CHANGE REQUESTED.
After Reno acknowledges, you may switch frequencies such as 123.3. You may elect to stay on their frequency or they may ask you to remain on frequency until out of their radar range.

WHERE YOU NEED TO BE IN CONTACT: Contact Reno Approach when in or about to enter high density traffic airspace as described above. In general that is at any altitude within 20 NM of RNO, and above 10,000' when within 40 NM of RNO. Beyond 40 NM or outside the boundary of the Reno radar coverage area depicted on the chart, you will no longer be seen on Reno's radar and will likely be out of VHF radio range. You can contact Oakland Center on 127.95 if you are flying in airspace that is frequented by high speed traffic outside of this area. Extension of the approach routes beyond 40 NM is an indicator of where to expect high speed traffic. In these areas, this traffic will be descending and preparing to be handed over from Oakland Center to Reno Approach.

Radio Communications and Etiquette:

If you monitor 123.3 during the cross country season you will hear a lot of "non-traffic chatter," that is, pilots exchanging non-essential information. This can be dangerous insofar as it prevents the exchange of information concerning potential traffic conflicts. This is especially so when flying in the vicinity of the White Mountains where it is recommended that glider pilots communicate on 123.5 using Procedure Alpha. During the peak summer season this can be a very busy area where closing speeds of approaching gliders can be in the neighborhood of 400 MPH. A briefing for Procedure Alpha can be found on the Soaring Safety Foundation web site under Presentations/Safety (http://www.soaringsafety.org/presentation/safety.html). This procedure is very specific about what and where to report.

We recommend, and fellow glider pilots will be appreciative, if you hold "chatter" to a minimum on these frequencies (123.3 and 123.5). Consider using 122.75 or 122.85, which are designated air to air frequencies, to chat with your friends. But please remember that you need to be on 123.3 (or 123.5) when you are flying in high density GLIDER traffic areas.

It is also important to know that 123.3 has been published in several places as a frequency used by glider pilots in this area. As a result, pilots of some high speed traffic approaching Carson City and Reno have begun to make traffic advisory calls when descending over the Pine Nuts and Dogskins. We consider this a positive action on their part and encourage them to continue. If you hear a call from power traffic on a descent into Carson City or Reno and think you might be in their general vicinity, please respond with your altitude and general location (eg. west side of the Pine Nuts, 15 miles southeast of Minden-Tahoe airport at 14,500 feet). If you hear a traffic advisory in another area, make sure you use an airport or an intersection to identify your location.

NOTE: *Anytime you are on an approach frequency, have talked to approach and wish to change frequency temporarily - to talk to other gliders on 123.3 for instance – ASK APPROACH CONTROL FOR A TEMPORARY FREQENCY CHANGE AND LET THEM KNOW WHEN YOU ARE BACK ON THEIR FREQUENCY!*

Example:
Reno Approach, glider 234 requests off frequency for two minutes.
(Reno responds) – Glider 234 frequency change approved. Report when back on frequency.
Reno Approach, glider 234 back on frequency. *(Make sure you **listen** before you report back on frequency so you don't step on another communication).*

Here is some ATC lingo to become familiar with. A more comprehensive tutorial for taking to ATC is posted on the PASCO web site under articles (http://www.pacificsoaring.org/articles.html).

Affirmative	don't say "yes"
Negative	don't say "no"
Roger	used to acknowledge last transmission
Localizer	electronic beam paralleling a runway – used for ILS approaches
Maintain (at or below 8000)	ATC commands this altitude
Unable	use this word to tell ATC you can not comply with instructions
Squawk (zero four four zero)	set 4-digit code on transponder to 0440
Ident	press transponder ident button/switch
Radar Contact	you have been positively identified on radar
Radar Contact lost	typically, you are below radar coverage or behind a mountain

Description of Reno Arrival and Departure Routes:

With a wind from the north, Reno Approach typically uses runway 34 for arrivals and departures. When the wind is out of the south they will usually use runway 16. Each has its special considerations for gliders flying out of Minden, Truckee or Air Sailing. BE AWARE that the "lines" on the chart that represent these approach routes are only guidelines. Traffic can be up to 10 miles on either side of these "lines" and can be anywhere on clear days if cleared for a visual approach. If you are high enough to see Reno you will probably be able to hear the ATIS (135.8) so you will know which runway is in use and what the Reno altimeter setting is. Listen to ATIS when you are high enough to see the airport, and BEFORE contacting Reno Approach.

DEPARTURES: Departing jet traffic will usually climb into Class A airspace within 20 miles of the airport (Carson City to the south and AirSailing to the north). Lower performance aircraft traffic may remain in Class E airspace in these areas.

SOUTH: When Reno traffic is departing to the south they will normally climb straight out in the direction of Carson City until approximately 10,000' over the south end of Washoe Lake or Virginia City, then continue straight ahead or begin to turn east or west depending on their destination. Traffic may be in the vicinity of Slide Mountain on a west departure and along the I-80 corridor toward Silver Springs on an east departure.

NORTH: On a northerly departure, traffic will climb to 10,000' just east of Stead and then begin heading northwest, directly northeast or south, northeast and southeast via the Mustang VOR.

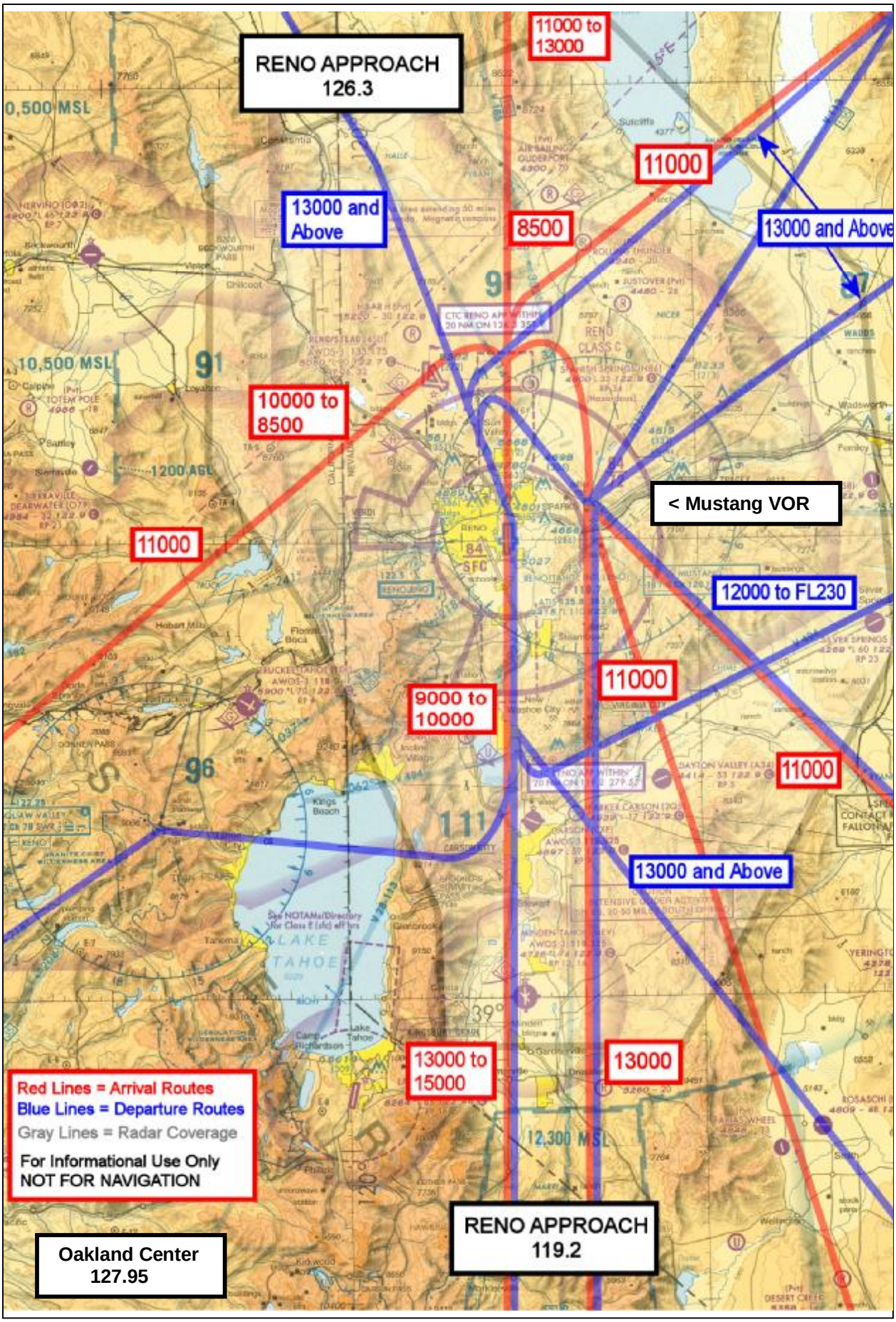
STRAIGHT-IN RUNWAY 34 (Southern) ARRIVALS: Arriving from the south, high speed traffic will frequently be brought to an intersection directly south of Minden at approximately 14,000', then directed to fly a straight-in approach that will put them over Carson City at approximately 12,000'. This puts high speed traffic at glider altitudes over Minden, Carson City, and east of Truckee. You should expect this traffic and be in radio contact with Reno Approach if you are in the same airspace.

STRAIGHT-IN RUNWAY 16 (Northern) ARRIVALS: Arriving from the north, traffic will be vectored to an intersection at 12,000', then to intercept the ILS localizer for a straight in approach to runway 16. The traffic will often be told to "intercept the localizer for a straight in approach". This puts them in the same airspace as gliders thermalling over the Dogskins. You need to be in radio contact with Reno Approach when you are in this area.

CIRCLING RUNWAY 16 (Southern) ARRIVALS: Traffic arriving from the south when runway 16 is in use will be vectored over Mustang VOR (near Sparks), then north of the airport for a left turn back to runway 16. This approach often puts traffic directly over the Pine Nuts and Dayton on a heading for the Mustang VOR. It also will put gliders flying south of Air Sailing or along the Pyramid Range in the same airspace as the Reno arrivals.

NORTHEAST RUNWAY 16 ARRIVALS: There are a significant number of arrivals on the ANAHO Arrival (flying over Anaho Island on Pyamid Lake) from the northeast that intercept the ILS localizer for a straight-in approach to runway 16 approximately 10 miles south of PYRAM Intersection. They may be descending between 12,000 to 8,500 feet crossing Warm Springs Valley, putting them in proximity to glider traffic flying south out of Air Sailing directly over Dogskin Mtn.

SOUTHWEST RUNWAY 16 ARRIVALS: This traffic will be coming from the vicinity of the TRUCK intersection and crossing over Stead descending to 8,500 feet to intercept the ILS localizer for a straight in approach to runway 16.


RENO APPROACH
126.3
11000 to
13000
11000
13000 and
Above
8500
13000 and Above
10000 to
8500
< Mustang VOR
11000
12000 to FL230
11000
9000 to
10000
11000
13000 and Above
13000 to
15000
13000
Red Lines = Arrival Routes
Blue Lines = Departure Routes
Gray Lines = Radar Coverage
For Informational Use Only
NOT FOR NAVIGATION
RENO APPROACH
119.2
Oakland Center
127.95

Intersections and VOR's on the San Francisco Sectional near Reno:

Name	Location	Coordinates (appx)
Halle	West of north end of Dogskin	39:55.4N, 119:57.0W
Pyram	South end of Dogskin Mountain	39:53.8N, 119:45.3W
Nicer	Southeast of AirSailing	39:44.8N, 119:39.9W
Wadds	In between Nixon and Waddsworth	39:43.5N, 119:19.1W
Verdi	East of Verdi Peak (almost into Class C)	39:29.0N, 119:55.0W
Truck	North of Truckee, near Stampede Reservoir	39:27.9N, 120.09.6W
Chime	Just north of Rabbit Dry Lake	39:21.4N, 119:26.0W
Vikes	Just east of Virginia City	39:18.0N, 119:35.4W
Ryann	East of Dayton (north of Yerrington)	39:14.0N, 119:16.5W
Marri	Just east of Alpine Cty Apt.	38:46.0N, 119:42.0W
Richy	Over the south end of Lake Tahoe	39:00.1N, 120:01.0W
Mustang VOR	Just east of the north end of RNO	39:32.5N, 119:39.2W
Hazen VOR	Between Tiger and Fallon NAS	39:31.5N, 118:59.8W
Squaw Valley VOR	Top of Squaw Valley ski resort	39:11.1N, 120:16.0W

Note that aircraft flying under IFR (instrument flight rules) will report their position as off the xx radial of a specific VOR. This is how they will communicate with approach control.

Frequently Asked Questions:

1) This is going to be too much work. It will keep me from being able to concentrate on flying.

   If you are not used to communicating with Air Traffic Control, as all power pilots are, it may take a bit of practice before it becomes instinctive and does not distract you from flying the plane. Try listening to and communicating with Reno on a few local flights to become more comfortable with the procedures.

2) What if I am in a gaggle and need to be on 123.3 for safety?

   Request a frequency change before entering the gaggle. Let the controller know that you are requesting the change to enter a thermal to climb with other gliders. If there are 3 or 4 gliders in the gaggle and at least one glider has a transponder, Reno may request that you return to their frequency only when you leave the gaggle.

3) What do I do if the controller does not acknowledge me?

   Controllers may not respond right away for several reasons. They may be busy with other traffic that is in a more critical than you are at the moment. They may not hear you if you are out of range or have a weak radio. If you do not get a response after your second attempt, broadcast your position as if they had responded (GLIDER N1234 TEN MILES EAST OF TRUCKEE CLIMBING THROUGH ONE-TWO THOUSAND, EXPECT ONE-SIX THOUSAND, WILL PROCEED SOUTHEAST). When you get higher or closer to Reno, try calling them again. If you suspect that you are being ignored, note the time and call Reno TRACON (775-784-5582) when you get on the ground let them know what happened.

4) Should I talk to an airliner if I know that I am being called as traffic to them?

   You should not talk to ANYONE other than Reno Approach on the approach frequencies. It would be appropriate to tell Reno Approach when you have traffic, such as an airliner, in sight.

5) Will airliners be descending through clouds below 18,000 feet?

   Absolutely! Most airliners will be flying on Instrument Flight Plans which means they do not have to stay away from or out of clouds.