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# Long's Peak Air Charter, LLC

## RVSM OPERATIONS PROGRAM

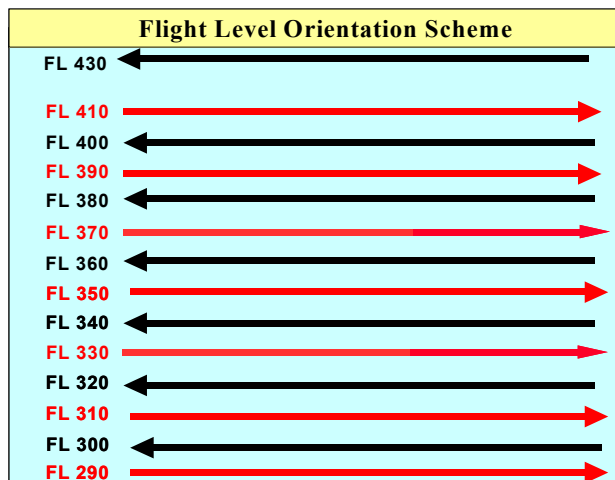
### General Operations

autopilot system to control the aircraft

- Any differences in reported altitude when alternate transponder or alternate system is manually selected to provide altitude information to Air Traffic Control.

### FLIGHT LEVEL ORIENTATION SCHEME

Altitude assignments for direction of flight follow a scheme of odd altitude assignment for magnetic courses 000-179 degrees and even altitudes for magnetic courses 180-359 degrees for flights up to and including FL410, as indicated in the chart in below.



#### ***RVSM Note:***

***Odd Flight Levels: Magnetic Course 000-179 Degrees***

***Even Flight Levels: Magnetic Course 180-359 Degrees***

### GUIDANCE ON SEVERE TURBULENCE AND MOUNTAIN WAVE ACTIVITY (MWA)

#### Introduction/Explanation

The information and practices in this paragraph are provided to emphasize to pilots and controllers the importance of taking appropriate action in RVSM airspace when aircraft experience severe turbulence and/or MWA that is of sufficient magnitude to significantly affect altitude-keeping.

### PROBLEMS OF VISUAL PERCEPTION AT 1,000 ft. VERTICAL SEPARATION

Pilots should be aware of the possibility of encountering visual perception problems in RVSM airspace during the following conditions:

- Night flying
- During turns
- When traffic flying in the opposite direction is encountered
- While flying in a local phenomenon such as the Northern Lights

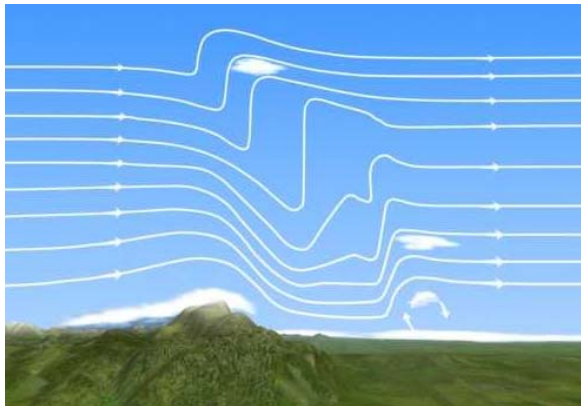
In these cases the pilot should trust the instruments, and unless necessary, resist making maneuvers based on visual references.

#### Severe Turbulence

Severe turbulence causes large, abrupt changes in altitude and/or attitude usually accompanied by large variations in indicated airspeed. Aircraft may be momentarily out of control. Encounters with severe turbulence must be remedied immediately in any phase of flight. Severe turbulence may be associated with MWA.

### Mountain Wave Activity (MWA)

Significant MWA occurs both below and above the floor of RVSM airspace, FL 290. MWA often occurs in western states in the vicinity of mountain ranges. It may occur when strong winds blow perpendicular to mountain ranges resulting in up and down or wave motions in the atmosphere. Wave action can produce altitude excursions and airspeed fluctuations accompanied by only light turbulence. With sufficient amplitude; however, wave action can induce altitude and airspeed fluctuations accompanied by severe turbulence. MWA is difficult to forecast and can be highly localized and short lived.



Wave activity is not necessarily limited to the vicinity of mountain ranges. Pilots experiencing wave activity anywhere that significantly affects altitude-keeping can follow the guidance provided below.

### In-flight MWA Indicators (Including Turbulence)

Indicators that the aircraft is being subjected to MWA are:

- Altitude excursions and/or airspeed fluctuations with or without associated turbulence

- Pitch and trim changes required to maintain altitude with accompanying airspeed fluctuations.
- Light to Severe Turbulence depending on the magnitude of the MWA.

### Priority for Controller Application of Merging Target Procedures

As described in the paragraph below, ATC will use “merging target procedures” to mitigate the effects of both severe turbulence and MWA. The procedures in paragraph 3 have been adapted from existing procedures published in FAA Order 7110.65, paragraph 5-1-8 (Merging Target Procedures). Paragraph 5-1-8 calls for en route controllers to advise pilots of potential traffic that they perceive may fly directly above or below his/her aircraft at minimum vertical separation. In response, pilots are given the option of requesting a radar vector to ensure their radar target will not merge or overlap with the traffic’s radar target.

The provision of “merging target procedures” to mitigate the effects of severe turbulence and/or MWA is not optional for the controller, but rather is a priority responsibility. Pilot requests for vectors for traffic avoidance when encountering MWA or pilot reports of “Unable RVSM due turbulence or MWA” are considered first priority aircraft separation and sequencing responsibilities. (FAA Order 7110.65, paragraph 2-1-2 states that the controller’s first priority is to separate aircraft and issue safety alerts).

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spent in processing flight plan data. Traffic saturation frequently prevents control personnel from accepting flight plans by radio. In such cases, the pilot is advised to contact the nearest FSS for the purpose of filing the flight plan.

**NOTE:** *There are several methods of obtaining IFR clearances at nontower, non-FSS, and outlying airports. The procedure may vary due to geographical features, weather conditions, and the complexity of the ATC system. To determine the most effective means of receiving an IFR clearance, pilots should ask the nearest FSS the most appropriate means of obtaining the IFR clearance.*

**NOTE:** *When requesting an IFR clearance, it is highly recommended that the departure airport be identified by stating the city name and state and/or the airport location identifier in order to clarify to ATC the exact location of the intended airport of departure.*

When filing an IFR flight plan, include as a prefix to the aircraft type, the number of aircraft when more than one and/or heavy aircraft indicator "H/" if appropriate.

When filing an IFR flight plan, identify the equipment capability by adding a suffix, preceded by a slant, to the AIRCRAFT TYPE, as shown in the Aircraft Equipment Suffixes table below.

ATC issues clearances based on filed suffixes. Pilots should determine the

appropriate suffix based upon desired services and/or routing. For example, if a desired route/procedure requires GPS, a pilot should file /G even if the aircraft also qualifies for other suffixes.

For procedures requiring GPS, if the navigation system does not automatically alert the flight crew of a loss of GPS, the operator must develop procedures to verify correct GPS operation.

The suffix is not to be added to the aircraft identification or be transmitted by radio as part of the aircraft identification.

It is recommended that pilots file the maximum transponder or navigation capability of their aircraft in the equipment suffix. This will provide ATC with the necessary information to utilize all facets of navigational equipment and transponder capabilities available.

When filing an IFR flight plan via telephone or radio, it is highly recommended that the departure airport be clearly identified by stating the city name and state and/or airport location identifier. With cell phone use and flight service specialists covering larger areas of the country, clearly identifying the departure airport can prevent confusing your airport of departure with those of identical or similar names in other states.

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<b>Aircraft Equipment Suffixes</b>			
	<b>Navigation Capability</b>	<b>Transponder Capability</b>	<b>Suffix</b>
<b>RVSM</b>	No GNSS, No RNAV	Transponder w/ Mode C	<b>/W</b>
	RNAV, No GNSS	Transponder w/ Mode C	<b>/Z</b>
	GNSS	Transponder w/ Mode C	<b>/L</b>
<b>No RVSM</b>	No DME	No Transponder	<b>/X</b>
		Transponder w/ No Mode C	<b>/T</b>
		Transponder w/ Mode C	<b>/U</b>
	DME	No Transponder	<b>/D</b>
		Transponder w/ No Mode C	<b>/B</b>
		Transponder w/ Mode C	<b>/A</b>
	TACAN	No Transponder	<b>/M</b>
		Transponder w/ No Mode C	<b>/N</b>
		Transponder w/ Mode C	<b>/P</b>
	RNAV, no GNSS	No Transponder	<b>/Y</b>
		Transponder w/ No Mode C	<b>/C</b>
		Transponder w/ Mode C	<b>/I</b>
	GNSS	No Transponder	<b>/V</b>
		Transponder w/ No Mode C	<b>/S</b>
		Transponder w/ Mode C	<b>/G</b>