

Mine Tour: Part One, the Rocky Mountains

The background of this charter is that the sudden economic boom after WW II requires tremendous amounts of materials, including minerals and metals extracted from the earth. You are to take a group of prominent and respected mining and metallurgical engineers on a tour of the US southwest where they will be stopping at various historic (and not so historic) mining districts to perform mine and property evaluations for potential investors (investors like Anaconda, Kennecott, Phelps Dodge, et al.). The charter leaves Denver, winds its way across the Continental Divide, and ends at Albuquerque.

Captains Notes:

Every one of the airports in this leg is higher than 5,000 feet, and density altitude needs to be considered for every landing and takeoff. A wise captain will only take the fuel required for the next leg plus sufficient to reach a good, solid alternate. Runways seem long enough, but with the reduced power and lift at these altitudes, they can be marginal on a hot summer day. Please review the notes included in each flight. Most of these airports DO NOT have instrument approaches, so watch the weather and have good solid alternates in mind.

Flying in mountainous terrain takes some additional skills to overcome potential problems, although MS FS has not yet included most of them. Winds across the mountains creates considerable updrafts and downdrafts, the reason that the FAR's require 2000 feet terrain clearance vs the 1000 feet used elsewhere. These airports will definitely test your skills at high altitudes.

As a cultural aside, for those that have never spent much time out here or studied the region in depth, there are 3 main items that caused the settlement of the western United States. These three items are mining, ranching/farming, and the economic lifeline that ties the first two items to civilization, the railroads. Without these three elements, the west would have taken a lot longer to be "settled".

The region we are flying over in this charter has its origins in mining and railroads. I believe it would increase your enjoyment of the flight to dig a little into the history of the areas we are flying to and over. Leadville was known for gold and silver in the early years, and recently (in respect to the date of this charter, early 1950's) was known for Camp Hale, where the 10th Mountain Division trained. Telluride (one of the stories about its naming was "to h... u ride"), although tellurides (the mineral species) are an important source of gold and silver in these mountains. This area of the Rockies is also the area of the Rio Grande Southern and the Silverton and Durango railroads. Durango (and the closely associated Animas, named for the Animas canyon which you see to the north of the airport, in which the Silverton and Durango makes its way from Durango to Silverton) was a local collection area for the mines up the Animas and the surrounding mountains. Questa will become famous in a short period of time because of a large deposit of molybdenite in the mountains east of here, one of the largest primary molybdenum producers in the United States.

As the title states, this is part one. With any luck and interest, I will continue the trip through New Mexico, Arizona, and Nevada.

NOTE: Flight plans have been updated for newer Aviation Simulator software (MSFS, P3D, FSX and XPlane). Routes, nav aids and landmarks have been preserved as best as possible. Please refer to the original documents folder as needed or desired.

From – To	Flight Description.				Course (Leg) Deg	Distance (Leg) nm
Denver (KDEN) Colorado, USA To Leadville (KLXV) Colorado, USA	To FQF VORTAC. After take off turn left to 162deg, intercept FQF 162R and commence climb to 12,000ft. Direct to VOR.....				143	3.1
					162	7.7
	To Intersection WP1. Turn right to 220deg and track 220R outbound from FQF. Waypoint at FQF DME 75.4.....				220	75.0
	To intersection WP2. Turn right to 235deg and track the HBU 235R towards HBU VORTAC. Waypoint at HBU DME 48.7.....				235	12.0
	From WP2 onwards the route is VFR only as pilot must maintain clearance from mountains to west.					
	To intersection WP3. Turn right to 325deg. Waypoint at HBU 036R, DME 50.1.....				325	11.6
					316	5.0
					339	10.5
					341	2.0
					251	1.5
				341	2.0	
				071	1.4	
				160	4.0	
To intersection WP4. Turn left to 314deg, commence 500 FPM descent to 10,700ft MSL (pattern altitude for KLXV) and reduce speed to 120kts. Waypoint at HBU 030R, DME 50.8. To KLXV. Turn right to 337deg and head towards the aerodrome..... To Fix 02. Turn right to runway reciprocal 339deg for 1min – commence turn 30 secs after station passage KLXV..... To runway. Commence a 90/270 procedure turn. Make a left 90deg turn and as soon as you roll out on 249deg, commence a right 270deg turn to 159deg. If you maintain the same turn rate throughout both turns, you should roll out heading directly for the runway where you should make a visual approach.....						
Flight No. 729-02-01	Arrival Airport Elev. – 9,924ft					

From – To	Flight Description.				Course (Leg) Deg	Distance (Leg) nm
Leadville (KLXV) Colorado, USA To Telluride (KTEX) Colorado, USA	The route is VFR until station passage HBU. To intersection WP1. Tune Nav 1 to HBU VORTAC, and set the OBS to 030deg. After take off turn to 158deg and commence climb to 13,500ft. Waypoint at HBU 030R, DME 50.8.....				158	10.4
	To intersection WP2. Turn left to 136deg. Waypoint at HBU 036R, DME 50.1.....				137	5.1
	To intersection WP3. Turn right to 154deg. Waypoint at HBU 244R, DME 46.6.....				154	25.0
	To HBU. Turn right to 247deg, intercept HBU 247R (Airway V95), and climb to 14,000. Direct to VOR.....				247	47.0
	To MTJ VOR/DME. Turn right to 263deg, intercept MTJ 263R (Airway V244), and commence descent to 12,000ft. Direct to VOR.....				263	41.0
To ETL VOR/DME. Turn left to 199deg and intercept ETL 199R (Airway V68). When the DME reads 5nm, slow to 120kts. Direct to VOR.....				199	33.0	
Prepare to intercept the KTEX ILS/DME, Turn left to 095deg and follow the offset localizer until the runway is in sight, then turn to runway heading and descend at pilot's discretion.....				095	17.4	
Flight No. 729-02-02	Arrival Airport Elev. – 9,074ft					

From – To	Flight Description.				Course (Leg) Deg	Distance (Leg) nm
Telluride (KTEX) Colorado, USA To Animas (00C) Colorado, USA	To WP1. Tune Nav 1 to ETL VOR/DME and set the OBS to 235deg. After take off make a steep right climbing turn to 276deg and commence climb to 12,000ft. Waypoint at ETL 235R, DME 3.0.....				276	24
	To DVC VORTAC. Turn left to 233deg and intercept DVC 233R. Direct to VOR (Airway V68)				233	32
	To CEZ VOR/DME. Turn left to 131deg, intercept CEZ 131R and commence descent to 10,000ft. Direct to VOR (Airway V391).				131	31
	To WP2. Turn left to 1131deg, track 111R outbound from CEZ Tune Nav 2 to FMN VORTAC and set the OBS to 347deg. Waypoint at FMN 347R, DME 22.9....				111	27
	From WP2 onwards the route is VFR only as pilot must be VFR to find Animas To WP3. Commence your descent to 8,000ft and continue to track 115R outbound from CEZ, and reduce speed to 120kts. Waypoint at FMN 008R, DME 19.4.....				115	8.5
To runway. Turn left to 013deg, track 008R outbound from FMN and descend at pilot's discretion for a visual approach. Be careful of the low hills that are just in front of the runway threshold.....				013	10	
Flight No. 729-02-03	Arrival Airport Elev. – 6,683ft					

From – To	Flight Description.				Course (Leg) Deg	Distance (Leg) nm
Animas (00C) Colorado, USA To Questa (N24) New Mexico, USA	Departure: To DRO VOR/DME. After take off turn right to intercept DRO 116R and commence climb to 13,000ft. Direct to VOR.....				116	8.2
	Enroute: To intersection BRAZZO. Turn left to 096deg and track 096R outbound from DRO (Airway V211). Waypoint at DRO 096R, DME 56.2.....				096	56
	To TAS VORTAC. Intercept TAS 096R, at TAS DME 5.0 reduce speed to initial approach speed and begin 500 FPM descent to 8800 ft. Direct to VOR.....				096	38
	Approach: To WP1. Turn left and track 055R outbound from TAS. Tune Nav 2 to CIM VORTAC and set the OBS to 096. Waypoint when Nav 2 OBS needle centers Be careful not to overshoot WP1 by too much, as there are some very solid cumulo-granite clouds directly in front of you with tops around 13,000 ft. To runway. Turn left to 352deg and descend at pilot's discretion for a visual approach.				055	15.9
				352	5.5	
Flight No. 729-02-04	Arrival Airport Elev. – 7,867ft					

From – To	Flight Description.				Course (Leg) Deg	Distance (Leg) nm
<p>Questa (N24) New Mexico, USA</p> <p>To</p> <p>Albuquerque (KABQ) New Mexico, USA</p>	To WP1. Tune Nav 1 to TAS VORTAC and set the OBS to 231deg. Tune Nav 2 to ALS VOR/DME and set the OBS to 151deg. After take off turn left to 153deg, intercept ALS 151R, and commence climb to 12,000ft. Waypoint when Nav 1 OBS needle centers (ALS 151R, DME 44.9).....				156	9.2
	To TAS VORTAC. Turn right to 232deg and intercept TAS 232R. Direct to VOR....				232	16.4
	To SAF VORTAC. Turn left to 174deg and track 174R outbound from TAS (airway V83), and commence a 500FPM descent to 11,000. At TAS DME 30.0 transfer to SAF VORTAC 174R. Direct to VOR.....				174	65
	To WP2. Turn right to 232deg and track 232R outbound from SAF (Airway V19). Commence 500FPM descent to 10,000ft, tune Nav 2 to ABQ VORTAC, and set the OBS to 203deg. Waypoint when Nav 2 OBS needle centers (SAF 232R, DME 25.4)				232	25
	To ABQ VORTAC. Turn left to 203deg and intercept ABQ 203R (Airway V19). Direct to VOR.....				203	23
	To WP3. Turn right to 256deg and track 256R outbound from ABQ. Commence 500FPM descent to 8,000ft and reduce speed to 120kts. Waypoint at ABQ 256R, DME 5.0.				256 Final Hdg	5.1
To ABQ. Commence a right procedure turn. Make a right 45deg turn to 304deg and fly heading for one minute. Make a left 180deg turn to 124deg, and intercept ABQ 077R.....				077	10.3	
To runway. Start 500FPM descent to 7,400ft, tune NAV 1 to Rwy 8 ILS, 111.90 and set the OBS to 078. On glide slope intercept, make an ILS approach.....				078	10.2	
Flight No. 729-02-05	Arrival Airport Elev. – 5,354ft					