

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

This charter traces the route of the great Trans-Siberian Railroad, which runs more than 4,500 nm from Moscow to Vladivostok. Some of the flights will be relatively short, while one will be extremely long due to a lack of default runways in MSFS. Although not formally part of the TSR, we will begin our charter from the city of St. Petersburg so we can truly go from coast to coast across Russia, from the North Sea to the Sea of Japan. You will notice quickly that Russia is a very flat country, so don't expect to see any substantial hills until we are more than half way through the charter.

Notes:

1. Throughout this charter, it is left to pilot's discretion as to when to start the descent for landing.
2. Some of the NDBs near aerodromes can be very strange – if they are in front of you, they can appear to be behind, and vice versa. If you stick with the flight notes you should be OK, but just be aware that the RMI may suddenly swing round at the last moment.

<<< Special Remarks (with reference to original documents)>>>

Since the original release of this charter, various nav aids have been decommissioned, others came into operation, or nav aid type and/or identification were changed.

Between the various simulators, there are also differences in placement of airports, runways and/or nav aids.

Ask your navigator to check the flightplans, and let him amend them before starting your engines ;-)

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 1. St. Petersburg to Moscow - FSX

*Note : Runways allocated by the original documentation are Dep. ULLI Rwy 10L, Arr. UUEE Rwy 07R.
Check weather reports and select appropriate runways.*

St. Petersburg, named for the patron saint of its founder, Tsar Peter I (aka Peter the Great), began in 1703 with the construction of the St. Peter and Paul fortress on the banks of the river Neva. The city has been called the Northern Capital and was the first paved city in Russia. Also known in past times as Petrograd and Leningrad, the city is one filled with museums today. If you've only got time to visit one museum, perhaps it should be the Railway Museum, which was established in 1809, 28 years before Russia had it's first working train! However, we don't have time to spend here, so let's start up our faithful plane and begin our tour of the great Trans-Siberian Railroad.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 79 ft		
St. Petersburg (ULLI) Russia To Moscow (UUEE) Russia	Departure: ULLI, 10R-28L, 10L-28R			089	3.4
	Prior to departure, tune ADF to 525.0 (PL NDB). Set altimeter. Take off, and start climb to 5,500 ft. Fly direct to NDB				
	Enroute:			126	56.0
	To UD NDB: At station crossing turn right to 126 deg, tune ADF to 940.0 and fly direct to NDB			118	134.0
	To DB NDB: Turn left to 118°, tune ADF to 375.0 and fly DR until signal is picked up. Tune NAV1 to 114.60 (MR VOR). Fly direct to NDB			171	72.0
	To AJ NDB: At station crossing turn right to 171°, tune ADF to 910.0 and fly DR until signal is picked up, then fly direct to NDB			107	70.0
	To AR NDB: At station crossing turn left to 107°, tune ADF to 1080.0 and fly direct to NDB				
Approach : UUEE, 07L-25R, 07R-25L – ILS at all runways			082	21.0	
To runway: At station crossing turn left to 082°. As soon as airport is in sight, adjust heading, fly to Sheremetyevo Airport, runway in use, and land.					
Length: 07L-25L : 11,643 ft 07R-25L : 10,973 ft			Width: 197 ft	Surface: Concrete	
Flight No: 1066-05-01-F	Arrival Airport Elev: 630 ft			Estimated totals for this flight>>>	
					356.0 NM

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Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 1. St. Petersburg to Moscow - P3D5

*Note : Runways allocated by the original documentation are Dep. ULLI Rwy 10L, Arr. UUEE Rwy 07R.
Check weather reports and select appropriate runways.*

*St. Petersburg, named for the patron saint of its founder, Tsar Peter I (aka Peter the Great), began in 1703 with the construction of the St. Peter and Paul fortress on the banks of the river Neva. The city has been called the Northern Capital and was the first paved city in Russia. Also known in past times as Petrograd and Leningrad, the city is one filled with museums today. If you've only got time to visit one museum, perhaps it should be the Railway Museum, which was established in 1809, 28 years before Russia had it's first working train!
However, we don't have time to spend here, so let's start up our faithful plane and begin our tour of the great Trans-Siberian Railroad.*

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 79 / 78 ft		
St. Petersburg (ULLI) Russia To Moscow (UUEE) Russia	Departure: ULLI, 10R-28L, 10L-28R Prior to departure, tune ADF to 525.0 (PL NDB). Set altimeter. Take off, and start climb to 5,500 ft. Fly direct to NDB			089	3.4
	Enroute: To WP1: Overhead PL, turn right to 124° OB from PL. Waypoint reached overhead Chudovo City. To DB NDB: Turn left to 117°, tune ADF to 375.0 and fly DR until signal is picked up. Tune NAV1 to 114.60 (MR VOR). Fly direct to NDB To AJ NDB: At station crossing turn right to 170°, tune ADF to 910.0 and fly DR until signal is picked up, then fly direct to NDB To AR NDB: At station crossing turn left to 106°, tune ADF to 1080.0 and fly direct to NDB			124 117 170 106	56.0 134.0 72.0 70.0
	Approach : UUEE, 06L-24R, 06R-24L – ILS at all runways To runway: At station crossing turn left to 081°. As soon as airport is in sight, adjust heading, fly to Sheremetyevo Airport, runway in use, and land.			081	21.0
	Length: 06L-24R : 11,620 ft 06R-24R : 12,111 ft	Width: 197 ft 197 ft	Surface: Concrete		
	Flight No: 1066-05-01 Arrival Airport Elev: 630 ft Estimated totals for this flight>>>				356.0 NM

The Trans-Siberian Railroad

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Leg 1. St. Petersburg to Moscow - **MSFS** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. ULLI Rwy 10L, Arr. UUEE Rwy 07R.
Check weather reports and select appropriate runways.*

*St. Petersburg, named for the patron saint of its founder, Tsar Peter I (aka Peter the Great), began in 1703 with the construction of the St. Peter and Paul fortress on the banks of the river Neva. The city has been called the Northern Capital and was the first paved city in Russia. Also known in past times as Petrograd and Leningrad, the city is one filled with museums today. If you've only got time to visit one museum, perhaps it should be the Railway Museum, which was established in 1809, 28 years before Russia had it's first working train!
However, we don't have time to spend here, so let's start up our faithful plane and begin our tour of the great Trans-Siberian Railroad.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 79 / 78 ft		
St. Petersburg (ULLI) Russia To Moscow (UUEE) Russia	Departure: ULLI, 10R-28L, 10L-28R Prior to departure, tune ADF to 525.0 (PL NDB). Set altimeter. Take off, and start climb to 5,500 ft. Fly direct to NDB			088	3.4
	Enroute: To WP1: Overhead PL, turn right to 123/124° OB from PL. Waypoint reached overhead Chudovo City. To DB NDB: Turn left to 116°, tune ADF to 375.0 and fly DR until signal is picked up. Tune NAV1 to 114.60 (MR VOR). Fly direct to NDB To AJ NDB: At station crossing turn right to 169°, tune ADF to 910.0 and fly DR until signal is picked up, then fly direct to NDB To AR NDB: At station crossing turn left to 105°, tune ADF to 1080.0 and fly direct to NDB			123 / 124	56.0
				116	134.0
				169	72.0
				105	70.0
	Approach : UUEE, 06L-24R, 06C-24C, 06R-24L – ILS at all runways To runway: At station crossing turn left to 080. As soon as airport is in sight, adjust heading, fly to Sheremetyevo Airport, runway in use, and land.			080	21.0
Length: 06L-24R : 10,189 / 10,474 / 10,464 ft 06C-24C : 11,643 / 11,628 / 11,617 ft 06R-24L : 12,139 / 12,111 / 12,099 ft		Width: 184 / 197 ft 188 / 197 ft 177 / 197 ft	Surface: Asphalt / Concrete		
Flight No: 1066-05-01	Arrival Airport Elev: 630 / 627 ft			Estimated totals for this flight>>>	
					356.0 NM

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Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 2. Moscow to Nizhny Novgorod - **FSX** – **P3D5** – **P3D6**

*Note : Runways allocated by the original documentation are Dep. UUEE Rwy 07R, Arr. UWGG Rwy 36R.
Check weather reports and select appropriate runways.*

From Moscow we fly to Nizhny Novgorod. Before we begin to track the route of the TSR, we will first take a slight detour to view Red Square and the Kremlin. Nizhny-Novgorod, on the River Volga, is Russia's third largest city. It has always been a major trade town, but it is also heavily industrialized. In the 19th century, it was said that "St Petersburg is Russia's head, Moscow's its heart, but Nizhny-Novgorod is its wallet". Under the Soviets, it was called Gorky, after one of its greatest sons, and was for a long time closed to foreigners. The dissident writer Andrei Sakharov was exiled here and his flat is now a museum. For a fine view of the City, visit the Cathedral of the Archangel Michael.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 3,500 ft	Apt Elev: ft		
Moscow (UUEE) Russia To Nizhny Novgorod (UWGG) Russia	Departure: UUEE, 07L-25R, 07R-25L / 06L-24R, 06R-24L / 06L-24R, 06C-24C, 06R-24L			201 / 197	9.7 / 10.0
	Prior to departure, tune ADF to 565.0 (KS NDB). Set altimeter. Take off, and begin climb to 3,500 ft. Fly direct to NDB				
	Enroute:			102 / 100 099	12.8 / 12.5
	To WP1 (Kremlin): At station crossing turn right to 102 / 100 / 099°. Waypoint reached overhead the Kremlin fortress. To MF NDB: Overhead WP1, turn left to 065 / 064°, tune ADF to 478.0 and fly DR until signal is picked up and fly direct to NDB. Tune NAV 2 to 114.60 (MR VOR) To CW NDB: At station crossing turn right to 087 / 085°, tune ADF to 485.0 and fly DR until signal is picked up, then fly direct to NDB. To RP NDB: At station crossing turn left to 083 / 082°, tune ADF to 960.0 and fly direct to NDB To NG NDB: At station crossing turn left to 030 / 029 / 028°, tune ADF to 245.0 and fly direct to NDB				
	Approach : UWGG, 36L-18R, 36R-18L To runway: At station crossing turn left to 359 / 360°. As soon as airport is in sight, adjust heading, fly to Strigino Airport, runway in use, and land.			359 / 360	3.3 / 3.2
	Length: 36L-18R : 9,270 / 8,150 / 9,188 ft 36R-18L : 8,078 / 9,750 / 9,823 ft		Width: 148 ft		
Flight No: 1066-05-02-FP	Arrival Airport Elev: 256 / 258 ft			Estimated totals for this flight>>>	
					246.0 NM

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Leg 2. Moscow to Nizhny Novgorod - **MSFS** – **XP12**

Note : Runways allocated by the original documentation are Dep. UUEE Rwy 07R, Arr. UWGG Rwy 36R.

Check weather reports and select appropriate runways.

From Moscow we fly to Nizhny Novgorod. Before we begin to track the route of the TSR, we will first take a slight detour to view Red Square and the Kremlin. Nizhny-Novgorod, on the River Volga, is Russia's third largest city. It has always been a major trade town, but it is also heavily industrialized. In the 19th century, it was said that "St Petersburg is Russia's head, Moscow's its heart, but Nizhny-Novgorod is its wallet". Under the Soviets, it was called Gorky, after one of its greatest sons, and was for a long time closed to foreigners. The dissident writer Andrei Sakharov was exiled here and his flat is now a museum. For a fine view of the City, visit the Cathedral of the Archangel Michael.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 3,500 ft	Apt Elev: 630 ft		
Moscow (UUEE) Russia To Nizhny Novgorod (UWGG) Russia	Departure: UUEE, 06L-24R, 06C-24C, 06R-24L Prior to departure, tune ADF to 565.0 (KS NDB). Set altimeter. Take off, and begin climb to 3,500 ft. Fly direct to NDB			197 / 196	10.0 / 9.8
	Enroute: To WP1 (Kremlin): At station crossing turn right to 099°. Waypoint reached overhead the Kremlin fortress. To MF NDB: Overhead WP1, turn left to 064 / 063°, tune ADF to 478.0 and fly DR until signal is picked up and fly direct to NDB. Tune NAV 2 to 114.60 (MR VOR) To CW NDB: At station crossing turn right to 084°, tune ADF to 485.0 and fly DR until signal is picked up, then fly direct to NDB. To RP NDB: At station crossing turn left to 082°, tune ADF to 960.0 and fly direct to NDB To NG NDB: At station crossing turn left to 028°, tune ADF to 245.0 and fly direct to NDB			099 064 / 063 084 082 028	12.5 70.0 73.0 47.0 31.0
	Approach : UWGG, 18R-36L, 18L-36R To runway: At station crossing turn left to 358°. As soon as airport is in sight, adjust heading, fly to Strigino Airport, runway in use, and land.			358	3.3
	Length: 18R-36L : 9,155 / 9,194 ft 18L-36R : 8,202 / 9,848 ft				
	Width: 132 / 148 ft 130 / 148 ft				
			Surface: Asphalt Asphalt / Concrete		
Flight No: 1066-05-02-MX	Arrival Airport Elev: 258 ft			Estimated totals for this flight>>>	
					246.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 3. Nizhny Novgorod to Perm - **FSX**

*Note : Runways allocated by the original documentation are Dep. UWGG Rwy 36R, Arr. USPP Rwy 21.
Check weather reports and select appropriate runways.*

Perm (Soviet name Molotov, after the politician and/or the cocktail) is another industrial city, and is best thought of as the inspiration for the city that Chekhov's "Three Sisters" wanted to leave. Pasternak wrote "Doctor Zhivago" here, and there is a good art gallery and the Sergei Diagilev Museum (for ballet fans). It is said to be possible to get a good pizza.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 256 ft		
Nizhny Novgorod (UWGG) Russia To Perm (USPP) Russia	Departure: UWGG, 18R-36L, 18L-36R Prior to departure, tune ADF to 327.0 (UV NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB			113	1.3
	Enroute: To RZ NDB: At station crossing turn right to 045° and fly UV OB radial. Tune ADF to 643.0, fly DR until signal is picked up, and fly direct to NDB. To WP1: At station crossing turn left to 040° and fly RZ OB radial. When RZ signal fades out, tune ADF to 630.0 (QT NDB). Waypoint reached when ADF points to 038°. You are overhead Kirovo Chepetsk city. To WP2: At WP1 turn right to 083°, Waypoint reached when ADF points to 311°.			045	106.0
	To WP3: At WP2 turn right to 098°, Waypoint reached when ADF points to 292°. You are slightly north from Glazov city.			040	139.0
	To MN NDB: At WP3 turn left to 075°, tune ADF to 940.0 and fly direct to NDB.			083	45.0
	To X NDB: At station crossing turn right to 097°, tune ADF to 345.0 and fly direct to NDB as soon as signal is picked up.			098	42.0
	To MN NDB: At WP3 turn left to 075°, tune ADF to 940.0 and fly direct to NDB.			075	73.0
	Approach : USPP, 03-21 (ILS Rwy 21, IPX, 109.90), 03L-21R To runway: At station crossing turn left to 209°. As soon as airport is in sight, adjust heading, fly to Bolshoye Savino Airport, runway in use, and land.			097	37.0
	Length: 03-21 : 8,414 ft 03L-21R : 4,091 ft			209	1.2
	Width: 161 ft 428 ft				
	Surface: Asphalt Grass				
Flight No: 1066-05-03-F	Arrival Airport Elev: 404 ft			Estimated totals for this flight>>>	
					444.0 NM

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Leg 3. Nizhny Novgorod to Perm - **MSFS** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UWGG Rwy 36R, Arr. USPP Rwy 21.
Check weather reports and select appropriate runways.*

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From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 258 / 251 ft		
Nizhny Novgorod (UWGG) Russia To Perm (USPP) Russia	Departure: UWGG, 18R-36L, 18L-36R Prior to departure, tune ADF to 327.0 (U NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB			001	1.2
	Enroute: To RZ NDB: At station crossing turn right to 044 / 043 °, tune ADF to 643.0, fly DR until signal is picked up, and fly direct to NDB. To WP1: At station crossing turn left to 038° and fly RZ OB radial. When RZ signal fades out, tune ADF to 438.0 (XA NDB). Waypoint reached when ADF points to 251°. You are overhead Kirovo Chepetsk city. To WP2: At WP1 turn right to 087°, Waypoint reached overhead Zuyevka city. To WP3: At WP2 turn right to 092 / 091 °, Waypoint reached overhead Glazov city. To WP4: At WP3 turn left to 072°. Waypoint reached when overhead Mendeleevo city. To X NDB: At WP4 turn right to 096°, tune ADF to 345.0 and fly direct to NDB as soon as signal is picked up.			044 / 043 038 087 092 / 091 072 096	106.0 139.0 36.0 50.0 74.0 37.0
	Approach : USPP, 03-21 (ILS Rwy 21, IPX, 109.90) To runway: At station crossing turn left to 210 / 209 °. As soon as airport is in sight, adjust heading, fly to Bolshoye Savino Airport, runway in use, and land.			210 / 209	1.4
	Length: 03-21 : 10,471 / 10,479 ft	Width: 153 / 161 ft	Surface: Asphalt / Concrete		
Flight No: 1066-05-03-MX	Arrival Airport Elev: 403 / 401 ft			Estimated totals for this flight>>>	
					444.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 3. Nizhny Novgorod to Perm - **P3D5** – **P3D6**

*Note : Runways allocated by the original documentation are Dep. UWGG Rwy 36R, Arr. USPP Rwy 21.
Check weather reports and select appropriate runways.*

Perm (Soviet name Molotov, after the politician and/or the cocktail) is another industrial city, and is best thought of as the inspiration for the city that Chekhov's "Three Sisters" wanted to leave. Pasternak wrote "Doctor Zhivago" here, and there is a good art gallery and the Sergei Diagilev Museum (for ballet fans). It is said to be possible to get a good pizza.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 256 / 258 ft		
Nizhny Novgorod (UWGG) Russia To Perm (USPP) Russia	Departure: UWGG, 18R-36L, 18L-36R Prior to departure, tune ADF to 245.0 (ST NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB			358 / 357	2.8
	Enroute: To RZ NDB: At station crossing turn right to 045 / 044 °, tune ADF to 643.0, fly DR until signal is picked up, and fly direct to NDB. To WP1: At station crossing turn left to 039 / 038 ° and fly RZ OB radial. When RZ signal fades out, tune ADF to 438.0 (XA NDB). Waypoint reached when ADF points to 251°. You are overhead Kirovo Chepetsk city. To WP2: At WP1 turn right to 088°, Waypoint reached overhead Zuyevka city. To WP3: At WP2 turn right to 093 / 092 °, Waypoint reached overhead Glazov city. To WP4: At WP3 turn left to 073 / 072 °. Waypoint reached when overhead Mendeleevo city. To X NDB: At WP4 turn right to 097 / 096 °, tune ADF to 345.0 and fly direct to NDB as soon as signal is picked up.			045 / 044	105.0
				039 / 038	139.0
				088	36.0
				093 / 092	50.0
				073 / 072	74.0
				097 / 096	37.0
	Approach : USPP, 03-21 (ILS Rwy 21, IPX, 109.90) To runway: At station crossing turn left to 211 / 210 °. As soon as airport is in sight, adjust heading, fly to Bolshoye Savino Airport, runway in use, and land.			211 / 210	1.4
		Length: 03-21 : 11,489 ft	Width: 161 ft	Surface: Concrete	
Flight No: 1066-05-03-P	Arrival Airport Elev: 404 / 403 ft			Estimated totals for this flight>>>	445.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 4. Perm to Rochshino - **FSX**

*Note : Runways allocated by the original documentation are Dep. USPP Rwy 21, Arr. USTR Rwy 03.
Check weather reports and select appropriate runways.*

Congratulations – we are now in Asia, having crossed the Ural Mountains (or to be precise, flown through a very large gap in them). Yekaterinburg, passed over about midway through this flight, was founded in 1702 as a mining settlement, and became a major industrial city which expanded greatly during WWII. It is better known as the place where the Russian Royal family were slaughtered in July 1918 (between 1924 and 1991 the city was named Sverdlovsk, after one of the killers). There are a number of good museums – Case 13 in the Military History Museum contains fragments of Gary Power's U2 spy plane.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 404 ft		
Perm (USPP) Russia To Rochshino (USTR) Russia	Departure: USPP, 03-21 , 03L-21R Prior to departure, tune ADF to 672.0 (KT NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB			121	22.0
	Enroute: To EL NDB: At station crossing turn left to 095°, and fly OB radial from KT. When signal fades out, tune ADF to 786.0. When signal is picked up, fly direct to NDB.			095	147.0
	To QF NDB: At station crossing turn left to 064°. Mark the time! 40 min. from EL NDB, tune ADF to 315.0 (QF NDB). When signal is picked up, fly towards the NDB.			064	155.0
	Approach: USTR, 03-21 (ILS both runways), 03L-21R, 12-30 To runway: Prepare for short final. At station crossing turn left to 198°. As soon as airport is in sight, adjust heading, fly to Rochshino Airport, runway in use, and land.			198	3.2
	Length: 03-21 : 9,852 ft 03L-21R : 6,890 ft	Width: 148 ft 100 ft	Surface: Concrete Grass		
Flight No: 1066-05-04-F	Arrival Airport Elev: 378 ft			Estimated totals for this flight>>>	
					327.0 NM

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Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 4. Perm to Rochshino - **MSFS** – **P3D5** – **P3D6** - **XP12**

Note : Runways allocated by the original documentation are Dep. USPP Rwy 21, Arr. USTR Rwy 03.

Check weather reports and select appropriate runways.

Congratulations – we are now in Asia, having crossed the Ural Mountains (or to be precise, flown through a very large gap in them). Yekaterinburg, passed over about midway through this flight, was founded in 1702 as a mining settlement, and became a major industrial city which expanded greatly during WWII. It is better known as the place where the Russian Royal family were slaughtered in July 1918 (between 1924 and 1991 the city was named Sverdlovsk, after one of the killers). There are a number of good museums – Case 13 in the Military History Museum contains fragments of Gary Power's U2 spy plane.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 403 / 404 / 401 ft		
Perm (USPP) Russia To Rochshino (USTR) Russia	Departure: USPP, 03-21 Prior to departure, tune NAV1 to 108.20 (PER VOR/DME). Set altimeter. Take off, and begin climb to 5,500 ft.				
	Enroute: To WP1: After take off, turn and track PER 121 / 122 ° OB radial. Waypoint reached when DME reads 22 NM. You are overhead Kukushtan city.			121 / 122	22.0
	To EKB VOR/DME: At waypoint crossing turn left to 094 / 095 / 093°. Maintain heading. When signal fades out, tune NAV1 to 113.20 (EKB VOR/DME). When signal is received, fly direct to VOR.			094 / 095 093	150.0
	To URT VOR/DME: At station crossing turn left to 063 / 064 °. Maintain heading. When signal fades out, tune NAV1 to 111.60 (URT VOR/DME). When signal is received, fly towards VOR.			063 / 064	151
	Approach: USTR, 03-21 (ILS both runways), 12-30 (ILS 30, IAT, 111.10 for M, P6 &X), 03L-21R To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Rochshino Airport, runway in use, and land.				
	Length: 03-21 : 9,809 / 9,823 / 9,794 ft 12-30 : 8,827 / 8,837 / 8,816 ft 03L-21R : 6,703 ft	Width: 137 / 148 ft 146 / 164 ft 328 ft	Surface: Asphalt / Grass		
Flight No: 1066-05-04	Arrival Airport Elev: 378 / 377 / 375 ft			Estimated totals for this flight>>>	323.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 5. Roschino to Omsk - FSX

*Note : Runways allocated by the original documentation are Dep. USTR Rwy 21, Arr. UNOO Rwy 25.
Check weather reports and select appropriate runways.*

Somewhere between Yekaterinburg and here we crossed into Siberia. Omsk was founded as a Cossack outpost and progressed to being a dumping ground for exiles. There are some nice parks and Dostoyevsky wrote “Buried Alive in Siberia” here. Enough said.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 378 ft		
Roschino (USTR) Russia To Omsk (UNOO) Russia	Departure: USTR, 03-21, 03L-21R, 12-30 Prior to departure, tune ADF to 315.0 (QF NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			018	3.2
	Enroute:				
	To OL NDB: At station crossing turn right to 100° and fly OB radial from QF for +/- 40 minutes, then tune ADF to 615.0. When signal is picked up, then fly direct to NDB.			100	148.0
	To LF NDB: At station crossing turn left to 089° and fly OB radial from OL. Tune ADF to 520.0. When signal is picked up, then fly direct to NDB.			089	128.0
	Towards TK NDB: At station crossing turn right to 153°. When established on course, tune ADF to 332.0 and fly towards NDB.			153	41.0
	Approach: UNOO, 07-25 (ILS both runways), 07L-25R, 15-33 To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Tsentralny Airport, runway in use, and land.			247	3.4
	Length: 07-25 : 8,240 ft 07L-25R : 9,186 ft 15-33 : 2,067 ft	Width: 148 ft 328 ft 250 ft	Surface: Asphalt Grass Grass		
Flight No: 1066-05-05-F	Arrival Airport Elev: 312 ft			Estimated totals for this flight>>>	
					323.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 5. Roschino to Omsk - **MSFS** - **P3D5** - **P3D6** - **XP12**

Note : Runways allocated by the original documentation are Dep. USTR Rwy 21, Arr. UNOO Rwy 25.

Check weather reports and select appropriate runways.

Somewhere between Yekaterinburg and here we crossed into Siberia. Omsk was founded as a Cossack outpost and progressed to being a dumping ground for exiles. There are some nice parks and Dostoyevsky wrote “Buried Alive in Siberia” here. Enough said.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 378 / 377 / 375 ft		
Rochshino (USTR) Russia To Omsk (UNOO) Russia	Departure: USTR, 03-21, 03L-21R, 12-30 Prior to departure, tune NAV1 to 111.60 (URT VOR/DME). Set altimeter. Take off, and begin climb to 5,500 ft.				
	Enroute:				
	To WP1: After take off, turn and track 098 / 099° OB from URT. When signal fades out, maintain heading. Waypoint reached when overhead Ichim city, after +/- 1 hour flight.			098 / 099	152.0
	To WP2: At station crossing turn left to 088 / 089° and fly DR on that heading. Waypoint reached when overhead Bazhenovo city, after +/- 50/55 minutes flight.			088 / 089	124.0
	Towards TK NDB: At waypoint crossing turn right to 152 / 153°. When established on course, tune ADF to 950.0 and fly towards NDB.			152 / 153	41.0
	Approach: UNOO, 07-25 (ILS both runways) To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Tsentralny Airport, runway in use, and land.			245 / 246	3.4
	Length: 07-25 : 8,162 / 8,185 / 8,187 / 8,181 ft	Width: 140 / 148 ft	Surface: Asphalt		
Flight No: 1066-05-05	Arrival Airport Elev: 312 ft			Estimated totals for this flight>>>	
					321.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 6. Omsk to Novosibirsk - **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Note : Runways allocated by the original documentation are Dep. UNOO Rwy 25, Arr. UNNT Rwy 07.

Check weather reports and select appropriate runways.

Founded in 1893 as a railway station, Novonikolaevsk (renamed Novosibirsk in 1925) prospered from being between the coal fields of eastern Siberia and the mineral mines of the Urals. There is a fine Opera House and Ballet Theatre, and some beautiful churches. It's also said to be the best place in Siberia for eating out – try Planet Sushi, Fei Lun, the Balkan Grill or the Mexico Kafe.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 312 ft		
Omsk (UNOO) Russia To Novosibirsk (UNNT) Russia	Departure: UNOO, 07-25 Prior to departure, tune ADF to 332.0 (TK NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			067 / 065	3.4
	Enroute: To SZ NDB: At station crossing, turn and track 069 / 068° OB from TK. When signal fades out, tune ADF to 965.0. As soon as signal is received, fly direct to NDB. To RO NDB: At station crossing turn right to 086 / 087°. When signal fades out, tune ADF to 310.0. As soon as signal is received, fly direct to NDB.			069 / 068 068	169.0
	Approach: UNOO, 07-25 (ILS both runways), 16-34 (ILS both runways), To runway: At station crossing turn left to 072 / 029 / 028 / 027°. As soon as airport is in sight, adjust heading, fly to Tolmachevo Airport, runway in use, and land.			086 / 087	148.0 / 147.0
	Length: 07-25 : 11,661 / 11,787 / 11,774 ft 16-34 (except FSX) : 12,087 / 11,797 / 11,804 ft 07L-25R : 9,843 ft (FSX/P3D only) 17-35 : 3,281 ft 03-21 : 3,281 ft 06-24 : 3,281 ft	Width: 197 / 192 / 197 ft 193 / 148 ft 348 / 328 ft 262 ft 262 ft 328 ft	Surface: Asphalt Asphalt / Concrete Grass Concrete Asphalt Grass		
	Flight No: 1066-05-06 Arrival Airport Elev: 365 / 367 / 365 ft Estimated totals for this flight>>>				323 / 322 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 7. Novosibirsk to Krasnoyarsk - FSX

*Note : Runways allocated by the original documentation are Dep. UNNT Rwy 07, Arr. UNKL Rwy 11R.
Check weather reports and select appropriate runways.*

Another Cossack settlement, which became a gold “boomtown” in the 19th century, and a major industrial centre in WWII. The painter Vasily Surikov lived here, and his home is now the Surikov Museum-Estate. The Krasnoyarsk Regional Museum is easy to find – it’s probably the only building in Siberia which looks like an ancient Egyptian Temple.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 365 ft		
Novosibirsk (UNNT) Russia To Krasnoyarsk (UNKL) Russia	Departure: UNNT, 07-25, 07L-25R (main runways) Prior to departure, tune ADF to 860.0 (PG NDB). Set altimeter. Take off, and begin climb to 5,500 ft.				
	Enroute:				
	To PG NDB: After take off, turn and fly direct to NDB.			056	9.3
	To TX NDB: At station crossing turn left to 036° and fly the PG OB radial. When signal fades out, tune ADF to 380.0 (TX NDB) and continue to NDB.			036	108.0
	To NZ NDB: At station crossing turn right to 081° and fly the TX OB radial. When signal fades out, fly DR and tune ADF to 420.0 (NZ NDB). As soon as signal is received, fly direct to NDB.			081	181.0
	To AJ NDB: At station crossing turn right to 089°. Tune ADF to 334.0 and fly to NDB.			089	60.0
	Approach: UNKL, 11-29 To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Yemelyanovo Airport, runway in use, and land.			110	3.2
Length: 12,193 ft Width: 197 ft Surface: Asphalt					
Flight No: 1066-05-07-F	Arrival Airport Elev: 942 ft Estimated totals for this flight>>>				362.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 7. Novosibirsk to Krasnoyarsk - **MSFS** – **P3D5** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UNNT Rwy 07, Arr. UNKL Rwy 11R.
Check weather reports and select appropriate runways.*

Another Cossack settlement, which became a gold “boomtown” in the 19th century, and a major industrial centre in WWII. The painter Vasily Surikov lived here, and his home is now the Surikov Museum-Estate. The Krasnoyarsk Regional Museum is easy to find – it’s probably the only building in Siberia which looks like an ancient Egyptian Temple.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 367 / 365 ft		
Novosibirsk (UNNT) Russia To Krasnoyarsk (UNKL) Russia	Departure: UNNT, 07-25, 07L-25R (main runways) Prior to departure, tune NAV1 to 113.30 (NSK VOR/DME). Set altimeter. Take off, and begin climb to 5,500 ft.				
	Enroute: To IO NDB: After take off, turn and track NSK 037 / 038° OB radial. After 45/50 minutes flight, or when signal fades out, tune ADF to 380.0 (IO NDB). Fly DR until signal is received, then fly direct to NDB.			037 / 038	119.0
	To AJ NDB: At station crossing turn right to 081° and fly IO OB radial. When signal fades out, tune ADF to 685.0. Fly DR until signal is received, then fly direct to NDB.			081/ 082 082	243.0 / 242.0
	Approach: UNKL, 11-29 To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Yemelyanovo Airport, runway in use, and land.			109 / 110 110	1.6 / 3.1
	Length: 12,146 / 12,110 / 12,111 / 12,184 ft	Width: 185 / 197 ft	Surface: Asphalt		
Flight No: 1066-05-07	Arrival Airport Elev: 941 / 942 / 939 ft			Estimated totals for this flight>>>	363.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 8. Krasnoyarsk to Irkutsk - FSX

*Note : Runways allocated by the original documentation are Dep. UNKL Rwy 11R, Arr. UIII Rwy 12.
Check weather reports and select appropriate runways.*

Another former Cossack settlement, which acquired aristocratic exiles (the Decembrists) in 1844, and hit gold in 1880, Irkutsk became known as “The Paris of Siberia”. Although a modern technology-based city, Irkutsk has many cultural reminders of it’s past and it’s Chinese and Mongolian neighbours.

To the east is Lake Baikal, the world’s deepest lake (1637m) with 1/5th of the world’s fresh water, more than all of the North American “Great Lakes”.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 942 ft		
Krasnoyarsk (UNKL) Russia To Irkutsk (UIII) Russia	Departure: UNKL, 11-29 Prior to departure, tune ADF to 685.0 (B NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			107	1.4
	Enroute: To WP1: After take off, turn and track B 083° OB radial. Tune NAV1 to 112.70 (NVD VOR/DME) and set the OBS to 121°. Fly DR for approximately 40 min. Waypoint reached (if you’re on course) just before a small airfield (Z26B), and the OBS needle centers.			083	103.0
	To NVD VOR: At waypoint crossing, turn right to 121° and fly direct to VOR.			121	141.0
	To CN NDB: At station crossing adjust course to 128°, tune ADF to 514.0 and fly OB 130° from VOR until NDB signal is picked up, then fly direct to NDB.			128	244.0
	Approach: UIII, 12-30, ILS both sides To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Irkutsk Airport, runway in use, and land.			118	2.7
	Length: 10,623 ft	Width: 148 ft	Surface: Concrete		
Flight No: 1066-05-08-F	Arrival Airport Elev: 1,675 ft			Estimated totals for this flight>>>	
					493.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 8. Krasnoyarsk to Irkutsk - **MSFS** – **P3D5** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UNKL Rwy 11R, Arr. UIII Rwy 12.
Check weather reports and select appropriate runways.*

Another former Cossack settlement, which acquired aristocratic exiles (the Decembrists) in 1844, and hit gold in 1880, Irkutsk became known as “The Paris of Siberia”. Although a modern technology-based city, Irkutsk has many cultural reminders of it’s past and it’s Chinese and Mongolian neighbours.

To the east is Lake Baikal, the world’s deepest lake (1637m) with 1/5th of the world’s fresh water, more than all of the North American “Great Lakes”.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 941 / 942 / 939 ft		
Krasnoyarsk (UNKL) Russia To Irkutsk (UIII) Russia	Departure: UNKL, 11-29 Prior to departure, tune ADF to 685.0 (B NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			110	1.5
	Enroute: To WP1: After take off, turn and track B 084° OB radial. Fly DR for approximately 40 min. Waypoint reached (if you’re on course) just before a small airfield (Z26B) near Kansk City..			084	103.0
	To WP2: At waypoint crossing, turn right to 121 / 122° and fly direct DR. Waypoint reached when crossing the railroad tracks near Nizhneudinsk City.			121 / 122	140.0
	To CN NDB: At waypoint crossing adjust course to 129°, tune ADF to 514.0 and fly DR until NDB signal is picked up, then fly direct to NDB.			129	245.0
	Approach: UIII, 12-30, ILS both sides To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Irkutsk Airport, runway in use, and land.			118	2.7
	Length: 12,191 / 11,684 / 11,673 ft	Width: 149 / 148 ft	Surface: Asphalt / Concrete		
Flight No: 1066-05-08	Arrival Airport Elev: 1,686 / 1,672 ft			Estimated totals for this flight>>>	
					493.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 9. Irkutsk to Chita

*Note : Runways allocated by the original documentation are Dep. ULLI Rwy 10L, Arr. UUEE Rwy 07R.
Check weather reports and select appropriate runways.*

This is quite a scenic run, so pick a good day for it! The original railway line ran along the South bank of the Angara River to Port Baikal on Lake Baikal, where trains were loaded onto a ferry boat for Mysovaya, where they were unloaded and continued via the Selenga valley to Ulan-Ude, but winter ice and summer storms made the lake crossing impractical. During the Russo-Japanese War they even built a line across the lake on the ice (the first train is probably still on the bottom of Lake Baikal). A new line, the Circumbaikal, known as “the Tsar’s Silver Necklace” was eventually made around the south end of the lake – feat of engineering involving over 200 bridges and several dozen tunnels. In the 1950’s the Angara was dammed near the lake - the line to Port Baikal was destroyed and a new line was built direct from Irkutsk to connect with the Circumbaikal line at the southwest end of Lake Baikal.

Our route follows the full Circumbaikal line. The fixes are quoted for convenience – just fly down the Angara River to Lake Baikal, then turn right and follow the coastline around the southern edge of the lake to the mouth of the Selenga River, then fly upstream.

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

>>> **FSX**

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 1,675 ft		
Irkutsk (UIII) Russia To Chita (UIAA) Russia	Departure: UIII, 12-30 Prior to departure, tune ADF to 514.0 (IR NDB). Set altimeter. Take off, and begin climb to 7,500 ft. Fly direct to NDB.			118	2.7
	Enroute:				
	To WP1: At station crossing, turn to 153° and follow down the length of the lake in front of you. Waypoint reached when you reach the much bigger lake, Lake Baikal, after approximately 13 min. <i>(Those in a hurry may fly direct from WP1 to WP7 by turning left to 78 deg from WP1)</i>			153	26.0
	To WP2: At waypoint crossing, turn right to 263° and follow the shoreline to Kultuk City.			263	42.0
	To WP3: At waypoint crossing, turn left to 183° and follow the shoreline to Slyudyanka City.			183	4.3
	To WP4: At waypoint crossing, turn left to 122° and follow the shoreline to Baikalsk City.			122	18.4
	To WP5: At waypoint crossing, turn left to 104° and follow the shoreline to Vydrino City.			105	18.6
	To WP6: At waypoint crossing, turn left to 074° and follow the shoreline to Babushkin City.			074	48.0
	To WP7: At waypoint crossing, turn left to 035° and follow the shoreline to Selenga River delta.			035	31.0
	To ZD NDB: At waypoint crossing turn right to 118°, tune ADF to 349.0 and fly direct to NDB.			118	50.0
	To GR NDB: At station crossing turn left to 081°, tune ADF to 320.0 and fly direct to NDB.			081	86.0
	To ZM NDB: At station crossing turn right to 099°, tune ADF to 518.0 and fly direct to NDB when signal is received.			099	126.0
	Approach: UIAA, 11-29, ILS both sides				
	To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Irkutsk Airport, runway in use, and land.			109	4.4
	Length: 9,171 ft	Width: 184 / 148 ft	Surface: Concrete		
Flight No: 1066-05-09-F	Arrival Airport Elev: 2,270 ft			Estimated totals for this flight>>>	
					457.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

>>> **MSFS** – **P3D5** – **P3D6** – **XP12**

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 1,686 / 1,672 ft		
Irkutsk (UIII) Russia To Chita (UIAA) Russia	Departure: UIII, 12-30 Prior to departure, tune ADF to 514.0 (IR NDB). Set altimeter. Take off, and begin climb to 7,500 ft. Fly direct to NDB.			118 / 119	2.9 / 2.7
	Enroute: To WP1: At station crossing, turn to 154 / 155° and follow down the length of the lake in front of you. Waypoint reached when you reach the much bigger lake, Lake Baikal, after approximately 13 min. (Those in a hurry may fly direct from WP1 to WP7 by turning left to 78 deg from WP1) To WP2: At waypoint crossing, turn right to 263 / 264° and follow the shoreline to Kultuk City. To WP3: At waypoint crossing, turn left to 183 / 184° and follow the shoreline to Slyudyanka City. To WP4: At waypoint crossing, turn left to 123 / 122 / 123° and follow the shoreline to Baikalsk City. To WP5: At waypoint crossing, turn left to 106 / 107° and follow the shoreline to Vydrino City. To WP6: At waypoint crossing, turn left to 074 / 075° and follow the shoreline to Babushkin City. To WP7: At waypoint crossing, turn left to 035 / 036° and follow the shoreline to Selenga River delta.			154 / 155	26.0
				263 / 264	42.0
				183 / 184	4.3
				123 / 122 / 123	18.4
				106 / 107	18.6
				074 / 075	48.0
				035 / 036	31.0
	To ZD NDB: At waypoint crossing turn right to 119 / 120°, tune ADF to 349.0 and fly direct to NDB when signal is received.			119 / 120	50.0
	To WP8: At station crossing turn left to 118 / 119°, and fly direct to Kokoktuy City..			118 / 119	83.0
	To ZM NDB: At waypoint crossing turn right to 099°, tune ADF to 518.0 and fly direct to NDB when signal is received.			077 / 078	142;0
	Approach: UIAA, 11-29 (ILS 29, IDG, 110.30) To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Kadala Airport, runway in use, and land.			110 / 111	4.3
	Length: 9,158 / 9,163 / 9,153 ft	Width: 183 / 184 / ft	Surface: Asphalt / Concrete		
Flight No: 1066-05-09	Arrival Airport Elev: 2,270 ft			Estimated totals for this flight>>>	
					471.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 10. Chita to Blagoveschensk - FSX

*Note : Runways allocated by the original documentation are Dep. UIAA Rwy 10L, Arr. UHBB Rwy 18.
Check weather reports and select appropriate runways.*

This is a long flight with very few navigation aids. Economical or long range cruise settings recommended. This is the longest leg – make sure the comrade stewardess has filled the samovar properly. Blagoveschensk isn't actually on the Trans-Siberian main line, which passes a few miles to the north, but we'll stop here anyhow for at least a comfort break. It's a border town, and the administrative capital of Amur Oblast.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 2,770 ft		
Chita (UIAA) Russia To Blagoveschensk (UHBB) Russia	Departure: UIAA, 11-29 Prior to departure, tune ADF to 518.0 (DG NDB). Set altimeter. Take off, and begin climb to 7,500 ft. Fly direct to NDB.			111	2.8
	Enroute:				
	To KU NDB: At station crossing turn left to 072° and track DG 072° OB. When signal fades out, tune ADF to 450.0 and fly direct to NDB.			072	253.0
	To TH NDB: At station crossing turn right to 090° and track KU 090° OB. When signal fades out, tune ADF to 315.0 and fly direct to NDB.			090	137.0
	To GU NDB: At station crossing turn right to 128° and track TH 128° OB. When signal fades out, tune ADF to 344.0 and fly direct to NDB.			128	88.0
	To BM NDB: At station crossing turn right to 128° and track TH 128° OB. When signal fades out, tune ADF to 350.0 and fly direct to NDB.			174	189.0
	Approach: UHBB, 18-36				
	To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Ignatyev Airport, runway in use, and land.			181	3.1
	Length: 9,319 ft	Width: 148 ft	Surface: Concrete		
Flight No: 1066-05-10-F	Arrival Airport Elev: 640 ft			Estimated totals for this flight>>>	
					673.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 10. Chita to Blagoveschensk - **MSFS** – **P3D5** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UIAA Rwy 10L, Arr. UHBB Rwy 18.
Check weather reports and select appropriate runways.*

This is a long flight with very few navigation aids. Economical or long range cruise settings recommended. This is the longest leg – make sure the comrade stewardess has filled the samovar properly. Blagoveschensk isn't actually on the Trans-Siberian main line, which passes a few miles to the north, but we'll stop here anyhow for at least a comfort break. It's a border town, and the administrative capital of Amur Oblast.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 2,770 ft		
Chita (UIAA) Russia To Blagoveschensk (UHBB) Russia	Departure: UIAA, 11-29 Prior to departure, tune ADF to 518.0 (DG NDB). Set altimeter. Take off, and begin climb to 7,500 ft. Fly direct to NDB.			109 / 110	2.8
	Enroute:				
	To KU NDB: At station crossing turn left to 073 / 074° and track DG OB. When signal fades out, tune ADF to 450.0 and fly direct to NDB.			073 / 074	250.0
	To WP1: At station crossing turn right to 090 / 089° and track KU 090° OB. When signal fades out, fly DR to Tachtamygda City.			090 / 089	140.0
	To GU NDB: At waypoint crossing turn right to 129 / 128°. Tune ADF to 344.0 and fly direct to NDB when signal is received.			129/128/129	86.0
	To BM NDB: At station crossing turn right to 174 / 175° and track TH 128° OB. When signal fades out, tune ADF to 350.0 and fly direct to NDB.			174 / 175	189.0
	Approach: UHBB, 18-36				
	To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Ignatyev Airport, runway in use, and land.			181 / 180	3.0
	Length: 9,155 / 9,176 / 9,184 ft	Width: 144 / 148 ft	Surface: Asphalt		
Flight No: 1066-05-10	Arrival Airport Elev: 638 / 640 / 638 ft			Estimated totals for this flight>>>	672.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 11. Blagoveschensk to Khabarovsk - **FSX**

*Note : Runways allocated by the original documentation are Dep. UHBB Rwy 18, Arr. UHHH Rwy 05R.
Check weather reports and select appropriate runways.*

Another modern city (founded 1858 as a garrison, fur-trading outpost and river crossing). Fighting broke out here between the Russians and the Chinese as recently as 1969, but things have calmed down to the stage where there is considerable cross-border trade. It has something of the air of a coastal resort, and there are also lots of Japanese tourists. Don't miss the Museum of History of the Far Eastern Railway, or the other museums.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 640 ft		
Blagoveschensk (UHBB) Russia To Khabarovsk (UHHH) Russia	Departure: UIAA, 11-29 Prior to departure, tune ADF to 350.0 (BM NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			001	3.1
	Enroute: To WZ NDB: At station crossing turn right to 080°. Tune ADF to 460.0 and fly direct to NDB.			080	26.0
	To FE NDB: At station crossing turn right to 122° and track WZ OB radial. When signal fades out, tune ADF to 942.0 and fly DR then direct to NDB when signal is received.			122	226.0
	To MR NDB: At waypoint crossing turn right to 143°. Tune ADF to 305.0 and fly direct to NDB when signal is received.			143	59.0
	To U NDB: At station crossing turn left to 110°. Tune ADF to 950.0 and fly direct to NDB.			110	23.0
	Approach: UHHH, 05L-23R, 05R-23L (ILS both sides) To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Novy Airport, runway in use, and land.			053	1.6
	Length: 05L-23R: 12,169 ft 05R-23L: 13,615 ft	Width: 148 ft 197 ft	Surface: Asphalt Concrete		
Flight No: 1066-05-11-F	Arrival Airport Elev: 246 ft Estimated totals for this flight>>>				339.0 NM

A DCA Charter by Tom Easterday & John Lawler

The Trans-Siberian Railroad

*Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12***

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 11. Blagoveschensk to Khabarovsk - **MSFS** – **P3D5** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UHBB Rwy 18, Arr. UHHH Rwy 05R.
Check weather reports and select appropriate runways.*

Another modern city (founded 1858 as a garrison, fur-trading outpost and river crossing). Fighting broke out here between the Russians and the Chinese as recently as 1969, but things have calmed down to the stage where there is considerable cross-border trade. It has something of the air of a coastal resort, and there are also lots of Japanese tourists. Don't miss the Museum of History of the Far Eastern Railway, or the other museums.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 638 / 640 / 638 ft		
Blagoveschensk (UHBB) Russia To Khabarovsk (UHHH) Russia	Departure: UIAA, 11-29 Prior to departure, tune ADF to 350.0 (BM NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			001 / 000	3.1 / 3.0
	Enroute: To WZ NDB: At station crossing turn right to 081/080°. Tune ADF to 460.0 and fly direct to NDB.			081 / 080	26.0
	To WP1: At station crossing turn right to 141/142° and track WZ OB radial. When signal fades out, fly DR to Obluchye. Waypoint reached overhead the city.			141 / 142 / 142	152.0
	To MR NDB: At waypoint crossing left right to 112/111°. Tune ADF to 305.0 and fly direct to NDB when signal is received.			112 / 111 / 112	142.0
	To U NDB: At station crossing turn left to 110/109°. Tune ADF to 950.0 and fly direct to NDB.			110 / 109	23.0
	Approach: UHHH, 05L-23R, 05R-23L (ILS both sides) To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Novy Airport, runway in use, and land.			053 / 050 / 051	1.7
	Length: 05L-23R: 11,511 / 11,472 / 11,468 ft 05R-23L: 13,180 / 13,107 / 13,108 ft	Width: 155 / 148 ft 182 / 197 ft	Surface: Asphalt		
Flight No: 1066-05-11	Arrival Airport Elev: 244 / 243 / 244 ft			Estimated totals for this flight>>>	349.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 12. Khabarovsk to Vladivostok - **FSX**

Note : Runways allocated by the original documentation are Dep. UHHH Rwy 05R, Arr. UHWW Rwy 25L.

Check weather reports and select appropriate runways.

Vladivostok (Lord of the East) was founded in 1860, and became a naval base in 1872. The city is built on an assortment of hills, peninsulas, and Islands, and the harbour, which resembles that of Istanbul, is called Golden Horn Bay (Bukhta Zolotoy Rog). In the early 20th century it was a flourishing merchant port with a polyglot population, much resembling Hong Kong. After the fall of Port Arthur, Vladivostok's naval importance increased. After the revolution, most of the foreign inhabitants were deported or shot. Security was progressively tightened until between 1958-1992 the city was closed to all foreigners (and most Russians). It is now rapidly regaining it's old flavour. If you were too busy during the approach to have a good look at Golden Horn Bay, take the funicular railway to the top of ulitsa Sukhanova. Don't miss the Vladivostok Fortress Museum, where they fire a noonday gun (sorry I forgot to tell you they do the same thing at St Petersburg and Moscow). There are also harbour tours, and museums, and more.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 246 ft		
Khabarovsk (UHHH) Russia To Vladavostok (UHWW) Russia	Departure: UIAA, 11-29 Prior to departure, tune ADF to 394.0 (IJ NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			220	45.0
	Enroute:				
	To TD NDB: At station crossing turn left to 187°. Tune ADF to 325.0 and fly direct to NDB.			187	120.0
	To BG NDB: At station crossing left right to 221°. When TD signal fades out, tune ADF to 920.0 and fly direct to NDB.			221	139.0
	To KW NDB: At station crossing turn right to 249°.Tune ADF to 400.0 and fly direct to NDB.			249	47.0
	Approach: UHWW, 07-25, 07L-25R To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Novy Airport, runway in use, and land.			251	8.8
	Length: 07-25: 8,858 ft 07L-25R: 11,549 ft	Width: 197 ft 197 ft	Surface: Grass Asphalt		
Flight No: 1066-05-12-F	Arrival Airport Elev: 46 ft Estimated totals for this flight>>>				359.0 NM

The Trans-Siberian Railroad

Updated to **FSX** – **MSFS** – **P3D5** – **P3D6** - **XP12**

Leg 12. Khabarovsk to Vladivostok - **MSFS** – **P3D5** – **P3D6** - **XP12**

*Note : Runways allocated by the original documentation are Dep. UHHH Rwy 05R, Arr. UHWW Rwy 25L.
Check weather reports and select appropriate runways.*

Vladivostok (Lord of the East) was founded in 1860, and became a naval base in 1872. The city is built on an assortment of hills, peninsulas, and Islands, and the harbour, which resembles that of Istanbul, is called Golden Horn Bay (Bukhta Zolotoy Rog). In the early 20th century it was a flourishing merchant port with a polyglot population, much resembling Hong Kong. After the fall of Port Arthur, Vladivostok's naval importance increased. After the revolution, most of the foreign inhabitants were deported or shot. Security was progressively tightened until between 1958-1992 the city was closed to all foreigners (and most Russians). It is now rapidly regaining it's old flavour. If you were too busy during the approach to have a good look at Golden Horn Bay, take the funicular railway to the top of ulitsa Sukhanova. Don't miss the Vladivostok Fortress Museum, where they fire a noonday gun (sorry I forgot to tell you they do the same thing at St Petersburg and Moscow). There are also harbour tours, and museums, and more.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 5,500 ft	Apt Elev: 244 / 243 ft		
Khabarovsk (UHHH) Russia To Vladavostok (UHWW) Russia	Departure: UHWW, 07-25, 07L-25R Prior to departure, tune ADF to 394.0 (IJ NDB). Set altimeter. Take off, and begin climb to 5,500 ft. Fly direct to NDB.			221 / 220	45.0
	Enroute:				
	To TD NDB: At station crossing turn left to 188/187°. Tune ADF to 325.0 and fly direct to NDB.			188 / 187	118.0
	To BG NDB: At station crossing left right to 222/221°. When TD signal fades out, tune ADF to 920.0 and fly direct to NDB.			222 / 221	139.0
	To KW NDB: At station crossing turn right to 250/249°. Tune ADF to 400.0 and fly direct to NDB.			250 / 249	55.0
	Approach: UHWW, 07L-25R, 07R-25L / 07R-25L / 07L-25R, 07R-25L To runway: Prepare for short final. As soon as airport is in sight, adjust heading, fly to Novy Airport, runway in use, and land.			255 / 254	1.4
	Length: 07L-25R: 11,479 / 11,482 ft 07R-25L: 11,482 / 11,478 / 11,483 ft	Width: 197 / 164 ft 203 / 197 ft	Surface: Concrete Asphalt		
Flight No: 1066-05-12	Arrival Airport Elev: 59 ft			Estimated totals for this flight>>>	
					359.0 NM