

London to Melbourne Air Race – 1934 (*The MacRobertson Trophy Air Race*)

Cruise at 7,500 ft. unless noted. Set Season to Summer. Reset Time to "Day" for each leg

Navigation by Dead Reckoning, NDB's and some VOR's -- Checkpoints are mainly Airports, NDBs or landmarks.

The flights must be flown in the order shown below (or in the reverse direction AFTER the Australia-bound flight is completed).

Report flights as LM-00 through LM-47, or LM-00R thru LM-47R for the return (here, possibly amend flight levels as per semi-circular rules...).

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

MSFS users :

LM-00 : CH & SDM NDB are not in the database.

LM-01 : LYX, CGZ & MV NDB's are not in the database.

LM-02 : MOU NDB missing in the database.

LM-03 : CT, SNE NDB's are not in the database.

LM-04 : FA NDB missing in the database.

LM-05 : PRA, FRS, TEA, AME, BPL NDB's are not in the database.

LM-06 : BRD, PRV NDB's are not in the database.

LM-09 : BAB (using BOD instead), JYO NDB's are not in the database.

LM-10 : AJF NDB missing in the database.

LM-12 : NR NDB missing in the database.

LM-13 : TJ, RT NDB's are not in the database.

LM-17 : OR NDB missing in the database.

LM-18 : KO NDB missing in the database.

LM-21 : VIAL is now VEAB.

LM-22 : VIAL is now VEAB. BN NDB missing in the database.

LM-23 : JS, DU NDB's are not in the database.

LM-24 : DU, EG NDB's are not in the database.

LM-25 : SW NDB missing in the database.

LM-31 : KB NDB missing in the database.

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

LM-32 : PK NDB missing in the database.

LM-33 : NX NDB missing in the database.

LM-35 : TG NDB missing in the database. WARQ is now WAHQ.

LM-36 : WARQ is now WAHQ.

LM-37 : WADW is now WATU.

LM-38 : WADW is now WATU.

LM-40 : HWS NDB missing in the database.

LM-42 : BKT NDB missing in the database.

LM-43 : WTN NDB missing in the database.

LM-44 : BCK NDB missing in the database.

LM-45 : BRW NDB missing in the database.

LM-46 : CDO, WWL, TEM NDB's are not in the database.

LM-47 : MNG, BOL, ROC NDB's are not in the database.

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

1. AMSTERDAM TO MILDENHALL

Note : Runways allocated by the original documentation are Dep. EHAM Rwy 22, Arr. EGUN Rwy 29.

EHAM 22 is the exact spot where the Dutch DC-2 began the historic race, which it won.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 6,500 ft	Apt Elev: -12 ft		
Amsterdam (EHAM), Netherlands To Mildenhall (EGUN), UK	Departure: EHAM, 04-22, 06-24, 09-27, 18-36 L, C and R Tune ADF to ND NDB (279.0). Set altimeter. Take off, and start climb to 6,500 ft.				
	Enroute: <i>To ND NDB (417.0).</i> After take off, turn to 279°. Maintain heading until ND NDB signal is received, and fly to NDB. <i>To EGUN.</i> Overhead ND NDB, turn left and track 250° OB bearing from ND NDB.			279	113.0
				250	48.0
	Approach : EGUN, 10-28 (ILS both Runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Mildenhall Airport, runway in use, and land.				
	Length: 12,226ft	Width: 141 ft	Surface: Asphalt		
Flight No: LM-00	Arrival Airport Elev: 27 ft Estimated totals for this flight>>>				161.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

2. MILDENHALL TO AUXERRE

Note : Runways allocated by the original documentation are Dep. EGUN Rwy 11, Arr. LFLA Rwy 19.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 27 ft		
Mildenhall (EGUN), UK To Auxerre (LFLA), France	Departure: EGUN, 10-28 Before take off, tune ADF to SND NDB (362.5). Set altimeter. Take off, start climb to 7,500 ft.				
	Enroute:				
	To SND NDB. After take off, turn and fly to NDB.			170	48.0
	To LZD NDB (397.0). Overhead SND NDB, turn left to 166° and fly to NDB.			166	38.0
	To LT NDB (348.5). Overhead LYX NDB, turn left to 135° and fly to NDB.			135	35.0
	To GI NDB (339.0). Overhead LT NDB, turn right and track 139° OB bearing. When signal fades out, tune ADF to GI NDB and fly to NDB.			139	54.0
	To AX NDB (417.0). Overhead GI NDB, turn right and track 159° OB bearing. When signal fades out, tune ADF to AX NDB and fly to NDB. About 70 NM Dead Reckoning between stations.			159	122.0
	To LFLA. Overhead AX NDB, turn right to 181°.			181	4.4
	Approach: LFLA, 18-36 To runway. As soon as airport is in sight, adjust heading, fly to Branches Airport, runway in use, and land.				
	Length: 5,401 ft	Width: 82 ft	Surface: Asphalt		
Flight No: LM-01	Arrival Airport Elev: 515 ft			Estimated totals for this flight>>>	302.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

3. AUXERRE TO MARSEILLE

Note : Runways allocated by the original documentation are Dep. LFLA Rwy 19, Arr. LFML Rwy 14L.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 515 ft		
Auxerre (LFLA), France To Marseille (LFML), France	Departure: LFLA, 01-19 Before take off, tune ADF to AX NDB (417.0). Set altimeter. Take off, start climb to 7,500 ft				
	Enroute: <i>To SN NDB (430.0).</i> After take off, turn and track 164° OB from AX NDB. When AX signal fades out, tune ADF to SN NDB and fly to NDB. About 40 NM Dead Reckoning between stations.			164	93.0
	<i>To BO NDB (299.0).</i> Overhead SN NDB, turn left to 159°. Fly to NDB.			169	47.0
	<i>To ORG NDB (328.0).</i> Overhead BO NDB, turn left to 162°. Fly to NDB.			164	86.0
	<i>To CM NDB (369.0).</i> Overhead ORG NDB, turn right to 170° and fly to NDB.			170	14.4
	<i>To MAR NDB (383.0).</i> Overhead CM NDB, turn left to 158° and fly to NDB.			156	27.0
	<i>To LFML.</i> Overhead MAR NDB, turn left to 133°.			131	4.7
	Approach: LFML, 13L-31R (ILS available both runways), 13R (ILS MCE, 108.30), 32L <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Marseille Provence Airport, runway in use, and land.				
Length: 13L-31R 11,494 ft 13R-31L 7,785 ft		Width: 148 ft	Surface: Asphalt		
Flight No: LM-02	Arrival Airport Elev: 32 ft			Estimated totals for this flight>>>	276.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

4. MARSEILLE TO FIGARI

Note : Runways allocated by the original documentation are Dep. LFML Rwy 14L, Arr. LFKF Rwy 05.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 74 ft		
Marseille (LFML), France To Figari / Sud Corse (LFKF), France	Departure: LFML, 14L-32R, 14R-32L Before take off, tune ADF to OB NDB (395.0). Set altimeter. Take off, start climb to 7,500 ft				
	Enroute:				
	<i>To OB NDB (395.0).</i> After take off, turn and fly to NDB.			120	23.0
	<i>To TLN NDB (322.0).</i> Overhead OB NDB, turn left to 117° and fly to NDB.			117	24.0
	<i>To RB NDB (365.5).</i> Overhead TLN NDB, turn left to 116° OB from TLN. Maintain heading above water. When signal fades out, tune ADF to RB NDB. About 62 NM Dead Reckoning between stations. Once RB becomes active, fly to NDB.			116	135.0
	<i>To WP1 (Senetosa Lighthouse).</i> Overhead RB NDB, begin 500 fpm descent. Turn right to 178°			178	21.0
	<i>To WP2 (Punta di Capineru).</i> Overhead lighthouse, turn left to 116°. Waypoint on the left side of the entry to Figari Bay.			116	12.6
	<i>To LFKF.</i> Overhead WP2, turn left to 40°. Fly to the airport.			40	3.7
	Approach: LFKF, 05-23 (ILS Rwy 23, GR 110,50) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Figari Sud Corse Airport, runway in use, and land.				
	Length: 8,132 ft	Width: 145 ft	Surface: Asphalt		
Flight No: LM-03	Arrival Airport Elev: 63 ft			Estimated totals for this flight>>>	220.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

5. FIGARI TO ROME

Note : Runways allocated by the original documentation are Dep. LFKF Rwy 05, Arr. LIRF Rwy 07.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 63 ft		
Figari (LFKF), France To Rome (LIRF), Italy	Departure: LFKF, 05-23 Before take off, tune NAV1 to OST VOR/DME (114.90). Set OBS to 079°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>Towards OST NDB (321.0).</i> After take off, turn and track 079° IB to OST VOR. Maintain hdg. Fly towards VOR.			079	142.0
	Approach: LIRF 07-25 (ILS Rwy 25, FEE 109.70), 16R-34L, 16C-34C, 16L-34R (ILS all 16-34) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Fiumicino Airport, runway in use, and land.			160	0.2
	Length: 07-25 10,435 ft, 16R-34L 12,800 16L-34R 12,764 ft	Width: 147 ft 194 ft 194 ft	Surface: Asphalt		
Flight No: LM-04	Arrival Airport Elev: 8 ft			Estimated totals for this flight>>>	142.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

6. ROME TO BRINDISI

Note : Runways allocated by the original documentation are Dep. LIRF Rwy 16L, Arr. LIBR Rwy 14.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 14 ft		
Rome (LIRF), Italy To Brindisi (LIBR), Italy	Departure: LIRF 07-25, 16R-34L, 16C-34C, 16L-34R Before take off, tune NAV1 to FRS VOR/DME (115.60). Set OBS to 097°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute:				
	<i>To FRS VOR.</i> After take off, turn and track 097° IB to FRS VOR. Fly to VOR.			097	48.0
	<i>To TEA VOR (112.90).</i> Overhead FRS VOR, turn right to 120° and fly to VOR.			120	37.0
	<i>To WP1 (Salina di Margherita di Savoia).</i> Overhead TEA VOR, turn left and track 081° OB from TEA. Fly to waypoint.			081	93.0
	<i>To LIBR.</i> Overhead WP1, turn right to 112°. Tune NAV1 to BCS VOR/DME (113.55). Set OBS to 112. Fly towards VOR.			112	98.0
	Approach: LIBR 05-23, 13-31 (ILS Rwy 31, IBN 109.50) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Casale Airport, runway in use, and land.				
	Length: 05-23 5,904 ft, 13-31 10,006 ft	Width: 145 ft 146 ft	Surface: Asphalt		
Flight No: LM-05	Arrival Airport Elev: 28 ft			Estimated totals for this flight>>>	276.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

7. BRINDISI TO ATHENS

Note : Runways allocated by the original documentation are Dep. LIBR Rwy 14, Arr. LGAV Rwy 03R.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 9,500 ft	Apt Elev: 28 ft		
Brindisi (LIBR), Italy To Athens (LGAV), Greece	Departure: LIBR 05-23, 13-31 Before take off, tune NAV1 to BRD VOR/DME (113.20). Set OBS to 136°. Set altimeter. Take off and start climb to 9,500 ft.				
	Enroute: <i>To BRD VOR.</i> After take off, turn and fly to VOR.			136	3.9
	<i>To KEK NDB (403.0).</i> Overhead BRD VOR, turn left and track 120° OB bearing from BRD. When signal fades out (over open water), tune ADF to KEK NDB. About 40 NM Dead Reckoning between stations. Fly to KEK as soon as signal is received.			120	107.0
	<i>To PAK NDB (353.0).</i> Overhead KEK NDB, turn to 131° and fly to NDB.			131	56.0
	<i>To AML NDB (367.0).</i> Overhead PAK NDB, turn right to 153° and fly to NDB. Start timer.			153	74.0
	<i>To KOR NDB (392.0).</i> Overhead AML NDB, turn left to 078°, Fly to NDB.			078	76.0
	<i>To WP1 (Fleves Island).</i> Overhead KOR NDB, turn right to 099°, Fly to landmark.			099	40.0
	<i>To LGAV.</i> Overhead WP1, turn left to 036°. Fly to the airport			036	13.2
	Approach: LGAV 03L-21R, 03R-21L (ILS all runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Elephterios Venizelos Int'l, runway in use, and land.				
	Length: 03L-21R 12,466 ft, 03R-21L 13,120 ft	Width: 151 ft	Surface: Asphalt		
Flight No: LM-06	Arrival Airport Elev: 278 ft			Estimated totals for this flight>>>	
					371.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

8. ATHENS TO RODOS (RHODES)

Note : Runways allocated by the original documentation are Dep. LGAV Rwy 15L, Arr. LGRP Rwy 07.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 278ft		
Athens (LGAV), Greece To Rodas (Rhodes) (LGRP), Greece	Departure: LGAV 03L-21R, 03R-21L Before take off, tune NAV1 to SPA VOR/DME (117.50) and set OBS to 117°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To SYR NDB (417.0).</i> After take off, turn and track 117° OB from SPA. SYR NDB signal should be received after +/- 15 minutes. Fly to NDB. <i>To MKO NDB (401.0).</i> Overhead SYR NDB, turn right to 082° and fly to NDB. <i>To LRO NDB (419.0).</i> Overhead MKO NDB, turn right to 097° and fly to NDB. <i>To KOS NDB (311.0).</i> Overhead LRO NDB, turn right to 145° and fly to NDB. <i>To ROS NDB (339.0).</i> Overhead KOS NDB, turn to 109°. Start timer. Fly to NDB.			117 082 097 145 109	57.2 18.9 71.0 27.0 55.0
	Approach: LGRP 06-24 (ILS Rwy 24, IRDS 110.30) <i>To runway.</i> Overhead ROS NDB, adjust heading, fly to Diagoras Airport, runway in use, and land.			238	1.7
	Length: 10,834 ft	Width: 149 ft	Surface: Asphalt		
	Arrival Airport Elev: 18 ft				
Flight No: LM-07	Estimated totals for this flight>>>				231.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

9. RODOS (RHODES) TO LARNACA

Note : Runways allocated by the original documentation are Dep. LGRP Rwy 07, Arr. LCLK Rwy 04
Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 18 ft		
Rodas (Rhodes) (LGRP), Greece To Larnaca (LCLK), Cyprus	Departure: LGRP 06-24 Before take off, tune ADF to ROS NDB (339.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To ROS NDB. After take off, turn and fly to NDB.			058	1.7
	To KZO NDB (416.0). Overhead ROS NDB, turn right to 098° OB bearing from ROS. When signal fades out, maintain heading, tune ADF to KZO NDB and fly to NDB.			098	72.0
	To FR NDB (297.0). Overhead KZO NDB, turn left to 070° and fly to NDB.			070	29.0
	To PHA NDB (328.0). Overhead FR NDB, turn right and track 123° OB bearing from FR. Watch hdg. No Nav aids until across open water, about 34 NM of Dead Reckoning between stations. Turn on ADF Morse Ident. When signal fades out, maintain heading, tune ADF to PHA NDB and fly to NDB as soon as signal is received.			123	147.0
	To LCA NDB (432.0). Overhead PHA NDB, turn left to 078° and fly to NDB.			078	54.0
	To LCLK. Overhead LCA NDB, turn left to 042°.			042	5.1
	Approach: LCLK 04-22 (ILS Rwy 22, ILC 110.30) To runway. As soon as airport is in sight, adjust heading, fly to Larnaca Int'l Airport, runway in use, and land.				
	Length: 9,814 ft	Width: 148 ft	Surface: Asphalt		
Flight No: LM-08	Arrival Airport Elev: 8 ft			Estimated totals for this flight>>>	308.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

10. LARNACA TO AMMAN

Note : Runways allocated by the original documentation are Dep. LCLK Rwy 22, Arr. OJAI Rwy 26R.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: ft		
Larnaca (LCLK), Cyprus To Amman (OJAI), Jordan	Departure: LCLK 04-22 Before take off, tune ADF to LCA NDB (432.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To LCA NDB.</i> After take off, turn and fly to LCA NDB.			222	5.1
	<i>To BOD NDB (351.0).</i> Overhead LCA NDB, turn left to 117°. Turn to 114°. If/When signal fades out, tune ADF to BOD NDB, and fly to NDB when signal is received.			114	110.0
	<i>To ROP VOR/DME (115.30, OBS 170°).</i> Overhead BAB NDB, turn right to 170° and fly towards Lake Tiberias (aka Sea of Galilee).			170	55.0
	<i>To AMN VOR/DME (116.30, OBS 152°).</i> Overhead ROP, turn left to 152° and fly to VOR.			152	64.0
	<i>To OJAI.</i> Overhead AMN NDB, turn right to 187°.			187	17.2
	Approach: OJAI 08R-26L (ILS Rwy 26L, IQA 110.90) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Queen Alia Int'l Airport, runway in use, and land.				
	Length: 12,004 ft	Width: 199 ft	Surface: Asphalt		
Flight No: LM-09	Arrival Airport Elev: 2,370 ft			Estimated totals for this flight>>>	252.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

11. AMMAN TO AL JOUF

*Note : Runways allocated by the original documentation are Dep. OJAI Rwy 08R, Arr. OESK Rwy 10
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 2,370 ft		
Amman (OJAI), Jordan To Al Jouf (OESK), Saudi Arabia	Departure: OJAI 08L-26R, 08R-26L Before take off, tune ADF to QA NDB (410.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To QA NDB. After take off, turn and fly to NDB.			081	5.1
	To GRY VOR/DME (114.70, OBS 102°). Overhead QA NDB, turn right to 102° and fly to VOR.			102	64.0
	To AJF VOR/DME (117.80, OBS 119°). Overhead GRY, turn right to 119°. Fly to VOR.			119	174.0
	Approach: OESK 10-28 (ILS Rwy 28, IAJF 109.90) To runway. As soon as airport is in sight, adjust heading, fly to Al Jouf Airport, runway in use, and land.			095	1.5
	Length: 12,003 ft	Width: 135 ft	Surface: Asphalt		
Flight No: LM-10	Arrival Airport Elev: 2,260 ft			Estimated totals for this flight>>>	244.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

12. AL JOUF TO RAFHA

Note : Runways allocated by the original documentation are Dep. OJAI Rwy 08R, Arr. OESK Rwy 10
Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 2,260 ft		
Al Jouf (OESK) , Saudi Arabia To Rafha (OERF) , Saudi Arabia	Departure: OESK 10-28 Before take off, tune NAV1 to RAF VOR/DME (116.80) and set OBS to 088°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To RAF VOR/DME. Turn to 088° IB to RAF VOR.			088	177.0
	Approach: OERF 11-29 (ILS Rwy 29, IRAF 111.50) To runway. As soon as airport is in sight, adjust heading, fly to Rafha Airport, runway in use, and land.			310	0.5
	Length: 9,840 ft	Width: 148 ft	Surface: Asphalt		
Flight No: LM-11	Arrival Airport Elev: 1,464 ft Estimated totals for this flight>>>				178.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

13. RAFHA TO KUWAIT

Note : Runways allocated by the original documentation are Dep. OERF Rwy 11, Arr. OKBK Rwy 15R

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 1,464ft		
Rafha (OERF), Saudi Arabia To Kuwait (OKBK), Kuwait	Departure: OERF 11-29 Before take off, tune NAV1 to RAF VOR/DME (116.80) and set OBS to 090°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To KUA VOR (114.15, OBS 090°).</i> After take off, turn and track 090° OB bearing from RAF VOR. At any time after levelling at cruise altitude, tune NAV1 to KUA VOR and fly to VOR.			090	234.0
	Approach: OKBK 15R-33L, 15L-33R, (ILS all runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Kuwait Int'l Airport, runway in use, and land.			132	1.9
	Length: 15R-33L 11,168 ft 15L-33R 11,471 ft	Width: 139 ft 147 ft	Surface: Cement Asphalt		
Flight No: LM-12	Arrival Airport Elev: 166 ft			Estimated totals for this flight>>>	236.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

14. KUWAIT TO DAHRAN

Note : Runways allocated by the original documentation are Dep. OKBK Rwy 14L, Arr. OEDR Rwy 16R.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 166 ft		
Kuwait (OKBK), Kuwait To Dhahran (OEDR), Saudi Arabia	Departure: OKBK 15R-33L, 15L-33R Before take off, tune NAV1 to RAS VOR/DME (116.40) and set OBS to 150°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To RAS VOR. After take off, turn and track 150° IB to RAS. Fly to the VOR. Towards DHA VOR/DME (117.20, OBS 139°). Overhead RAS, turn to 139° IB to DHA. Fly towards the VOR.			150	77.0
	Approach: OEDR 06-24, 16R-34L, 16L-34R, (ILS all 16-34 runways) To runway. As soon as airport is in sight, adjust heading, fly to Dhahran Int'l Airport, runway in use, and land.			139	136,0
	Length: 06-24 10,027 ft 16R-34L 11,967 ft 16L-34R 11,779 ft	Width: 96 ft 135 ft 136 ft	Surface: Asphalt		
Flight No: LM-13	Arrival Airport Elev: 84 ft			Estimated totals for this flight>>>	213.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

15. DAHRAN TO ABU DHABI

Note : Runways allocated by the original documentation are Dep. OEDR Rwy 16L, Arr. OMAA Rwy 13.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 84 ft		
Dhahran (OEDR), Saudi Arabia To Abu Dhabi (OMAA), U.A.E.	Departure: OEDR 06-24, 16R-34L, 16L-34R Before take off, tune ADF to SI NDB (343.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute:				
	To SI NDB. After take off, turn and track 129° to SI NDB. Fly to NDB.			129	33.0
	To WK NDB. Overhead SI NDB, turn to 125° IB to WK. Fly to NDB.			125	69.0
	To ZKU NDB (275.0). Overhead WK NDB, turn left to 100°. When ZKU signal is received, adjust heading and fly to NDB.			100	83.0
	To 2BD NDB (373.0). Overhead ZKU NDB, turn left to 091° and fly to NDB.			091	28.0
	To OMAA. Overhead 2BD, turn right to 110°. Tune NAV1 to ADV VOR/DME (114.25) and set OBS to 110°. Fly towards ADV.			110	62.0
	Approach: OMAA 13R-31L, 13L-31R (ILS at all runways) To runway. As soon as airport is in sight, adjust heading, fly to Abu Dhabi Int'l Airport, runway in use, and land.				
	Length: 13R-31L 13.456 ft 13L-31R 13.443	Width: 136 ft 196 ft	Surface: Cement Asphalt		
Flight No: LM-14	Arrival Airport Elev: 74 ft			Estimated totals for this flight>>>	275.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

16. ABU DHABI TO MUSCAT

Note : Runways allocated by the original documentation are Dep. OMAA Rwy 13, Arr. OOMS Rwy 08

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 74 ft		
Abu Dhabi (OMAA), U.A.E. To Muscat (OOMS), Oman	Departure: OMAA 13-31 Before take off, tune NAV1 to ADV VOR/DME (114.25) and set OBS to 099°. Tune ADF to AIN NDB (399.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To AIN NDB.</i> After take off, turn and track 099° OB from ADV VOR. As soon as signal is received, adjust heading and fly to NDB.			099	53.5
	<i>To MCT VOR/DME (114.50, OBS 103°).</i> Overhead AIN NDB, turn right and track 103° OB from AIN NDB. When signal fades out, tune NAV1 to MCT VOR/DME (114.50) and set OBS to 103°, . As soon as signal is received, adjust heading and fly towards VOR.			103	152.0
	Approach: OOMS 08-26 (ILS both runways), 02-20 <i>To runway.</i> As soon as OOMS airport is in sight, adjust heading, fly to Seeb Int'l Airport, runway in use, and land.				
	Length: 08L-26R 13,420 ft 08R-26L 11,760 ft	Width: 251 ft 145 ft	Surface: Asphalt		
Flight No: LM-15	Arrival Airport Elev: 22 ft Estimated totals for this flight>>>				206.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

17. MUSCAT TO JIWANI

Note : Runways allocated by the original documentation are Dep. OOMS Rwy 08, Arr. OPJI Rwy 03

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 22 ft		
Muscat (OOMS), Oman To Jiwani (OPJI), Pakistan	Departure: OOMS 08-26 Before take off, tune NAV1 to MCT VOR/DME (114.50) and set OBS to 045°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP 01 (Land point).</i> Turn and track 045° OB from MCT. When MCT signal fades out, maintain hdg over open water. Tune NAV1 to CBH VOR/DME and set OBS to 045°, About 90 NM Dead Reckoning between stations. As soon as CBH signal is received, adjust heading and fly towards VOR. Waypoint reached at 8.5 NM DME to CBH. <i>To OPJI.</i> At WP1 land point, turn east to 100°. Fly to the airport.			045	152.0
	Approach: OPJI 03-21 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Jiwani Airport, runway in use, and land.			100	84.0
	Length: 5,322 ft	Width: 96 ft	Surface: Asphalt		
Flight No: LM-16	Arrival Airport Elev: 170 ft			Estimated totals for this flight>>>	
					236.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

18. JIWANI TO KARACHI

Note : Runways allocated by the original documentation are Dep. OPJI Rwy 03, Arr. OPKC Rwy 07R
Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 170 ft		
Jiwani (OPJI), Pakistan To Karachi (OPKC), Pakistan	Departure: OPJI 03-21 Before take off, tune ADF to GD NDB (303.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To GD NDB.</i> After take off, Turn to 070°, climbing to cruise altitude. As soon as GD signal is received, adjust heading and fly to NDB.			070	30.0
	<i>To PI NDB (400.0).</i> Overhead GD NDB, turn right to 084° and fly to PI NDB.			084	55.0
	<i>To WP1.</i> Overhead PI NDB, turn right to 089°. Waypoint reached overhead OPOR airport, Ormara. When PI NDB signal fades out, tune ADF to OR NDB and fly to NDB.			089	67.0
	<i>To KA NDB (244.0).</i> Overhead OPOR airport, turn right to 101°. KA signal should be received after some 40 NM from WP1. Fly towards NDB.			101	116.0
	<i>To KC NDB (271.0).</i> Overhead KA NDB, turn left to 077°. Tune ADF to KC NDB and fly towards NDB.			077	28.0
	Approach: OPKC 07L-25R (ILS Rwy 25R IKC, 110.10), 07R-25L (ILS Rwy 25L IQA, 109.70) <i>To runway.</i> As soon as OPKC airport is in sight, adjust heading, fly to Jinnah Int'l Airport, runway in use, and land.				
	Length: 07L-25R 10,455 ft 07R-25L 11,147	Width: 140 ft 152 ft	Surface: Asphalt		
Flight No: LM-17	Arrival Airport Elev: 84 ft			Estimated totals for this flight>>>	296.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

19. KARACHI TO JODHPUR

Note : Runways allocated by the original documentation are Dep. OPKC Rwy 07L, Arr. VIJO Rwy 05

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 84 ft		
Karachi (OPKC), Pakistan To Jodhpur (VIJO), India	Departure: OPKC 07L-25R, 07R-25L Before take off, tune ADF to KC NDB (271.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To KD NDB (223.0).</i> After take off, turn and track 068° OB from KC NDB. At your convenience (both NDB's have 75 NM range...), tune ADF to KD NDB and fly to NDB. <i>To KE NDB (410.0).</i> Turn right and track 080° IB to KE NDB and fly to NDB. <i>To JO NDB (340.0).</i> Overhead KE, turn to 074° OB from KE. When signal fades out, tune ADF to JO and fly to NDB. Alternately, you can also tune NAV1 to JDP VOR/DME (116.20, OBS 074°) if necessary, but expect signal to become active about 15 minutes after losing KE signal.			068	70.0
				080	77.0
				074	181.0
	Approach: VIJO 05-23 (ILS Rwy 05, DDH 108.90) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Jodhpur AB, runway in use, and land.			084	1.2
	Length: 10,540 ft	Width: 144 ft	Surface: Asphalt		
Flight No: LM-18	Arrival Airport Elev: 713 ft			Estimated totals for this flight>>>	
					330.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

20. JODHPUR TO DELHI

Note : Runways allocated by the original documentation are Dep. VIJO Rwy 05, Arr. VIDP Rwy 28

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 713 ft		
Jodhpur (VIJO), India To Delhi (VIDP), India	Departure: VIJO 05-23 Before take off, tune ADF to JO NDB (340.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To TRR NDB (266.0).</i> After take off, turn and track 062° OB from JJO VOR. When signal fades out, maintain heading over desert, Tune ADF to TRR NDB, ADF Morse Ident on. When signal is received, fly to TRR. 40 NM Dead Reckoning between stations. <i>To NUH NDB (325.0).</i> Overhead TRR, turn left and track 059° OB from TRR NDB. When signal fades out, tune ADF to NUH NDB and fly to NDB. <i>To PL NDB (303.0).</i> Overhead NUH, turn left to 020°, fly to NDB.			062 059 020	152.0 88.0 28.0
	Approach: VIDP 09-27, 10-28, 11-29 (ILS all runways) <i>To runway.</i> Overhead PL NDB, airport in sight, adjust heading, fly to Indira Ghandi Int'l Airport, runway in use, and land.			289	4.9
	Length: 09-27 9,229 ft 10-28 12,508 ft 11-29 14,537 ft	Width: 144 ft 142 ft 192 ft	Surface: Asphalt		
Flight No: LM-19	Arrival Airport Elev: 741 ft Estimated totals for this flight>>>				273.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

21. DELHI TO GWALIOR

Note : Runways allocated by the original documentation are Dep. VIDP Rwy 10, Arr. VIGR Rwy 24

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 6,500 ft	Apt Elev: 741 ft		
Dehli (VIDP), India To Gwalior (VIGR), India	Departure: VIDP 09-27, 10-28, 11-29 Before take off, tune ADF to NUH NDB (325.0). Set altimeter. Take off and start climb to 6,500 ft.				
	Enroute: <i>To NUH NDB.</i> After take off, turn to NUH and fly to NDB.			191	29.0
	<i>To AG NDB (249.5).</i> Overhead NUH NDB, turn left to 136°. Tune ADF to AG NDB and fly to NDB when signal is received (2 to 5 NM after your turn).			136	77.0
	<i>To VIGR.</i> Overhead AG NDB, turn right to 164° and fly towards GJ NDB (390.0). Start timer.			164	54.0
	Approach: VIGR 06L-24R, 06R-24L <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Maharajour AB, runway in use, and land.				
	Length: 06L-24R 10,240 ft 06R-24L 10,286 ft	Width: 141 ft	Surface: Asphalt		
Flight No: LM-20	Arrival Airport Elev: 627 ft	Estimated totals for this flight>>>			160.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

22. GWALIOR TO ALLAHABAD

Note : Runways allocated by the original documentation are Dep. VIGR Rwy 06, Arr. VIAL Rwy 12

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 627 ft		
Gwalior (VIGR), India To Allahabad (VEAB), India	Departure: VIGR 06-24 Before take off, tune ADF to GJ NDB (390.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To KA NDB (292.0).</i> After takeoff, turn and track 085° OB from GJ. When signal fades out, tune ADF to KA NDB. Fly to NDB.			085	117.0
	<i>To FR NDB (334.0).</i> Overhead KA NDB, turn to 100°. Tune ADF to FR and fly to NDB.			100	54.0
	<i>To AP NDB (328.0).</i> Overhead FR NDB, Turn to 159°. Tune ADF to AP and fly to NDB.			159	50.0
	Approach: VEAB 12-30 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Allahabad Airport, runway in use, and land.			127	2.5
	Length: 12-30 8,267 ft	Width: 134 ft	Surface: Asphalt		
Flight No: LM-21	Arrival Airport Elev: 327 ft	Estimated totals for this flight>>>			224.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

23. ALLAHABAD TO RANCHI

*Note : Runways allocated by the original documentation are Dep. VIAL Rwy 06, Arr. VERC Rwy 13
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 327 ft		
Allahabad (VEAB), India To Ranchi (VERC), India	Departure: VEAB 12-30 Before take off, tune ADF to AP NDB (328.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To BBN VOR/DME (113.90 OBS 090).</i> After take off, turn and track 089° OB from AP NDB. 15 minutes after take off, tune NAV1 to BBN VOR and fly to VOR. <i>To VERC.</i> Overhead BBN, turn right and track 133° OB from BBN VOR. When signal fades out, maintain hdg over desert and fly +/- 73 NM Dead Reckoning. Tune ADF to RC NDB (285.0). Turn on ADF Morse Ident. Fly towards NDB when signal is received.			089	61.0
	Approach: VERC 13-31 (ILS Rwy 31, IRAN 110.50) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Ranchi Airport, runway in use, and land.			133	186.0
	Length: 9,010 ft	Width: 147 ft	Surface: Asphalt		
	Arrival Airport Elev: 2,148 ft				
Flight No: LM-22	Estimated totals for this flight>>>				247.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

24. RANCHI TO CALCUTTA

Note : Runways allocated by the original documentation are Dep. VERC Rwy 13, Arr. VECC Rwy 19L

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 2,148 ft		
Ranchi (VERC), India To Calcutta (VECC), India	Departure: VERC 13-31 Before take off, tune ADF to RC NDB (285.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To JJS VOR/DME (115.40, OBS 123°).</i> After take off, turn, intercept and track 123° OB from RC NDB. 15 minutes after take off, tune ADF to JJS and fly to VOR. <i>To TK NDB (390.0).</i> Turn and track 087° OB from JS NDB. Start timer. Maintain heading over desert, Dead Reckoning when no signal. Turn on ADF Morse Ident. After +/- 20 minutes flight, tune ADF to TK NDB. Fly to NDB. <i>To UM NDB (404.0).</i> Overhead TK NDB, turn right to 112° and fly to NDB.			123	56.0
				087	102.0
				112	27.0
	Approach: VECC 01L-19R (ILS Rwy 19R, IOKI 111.30), 01R-19L (ILS both runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Chandra Bose Int'l Airport, runway in use, and land.			190	5.2
	Length: 01L-19R 10,721 ft 01R-19L 11,911 ft	Width: 140 ft	Surface: Asphalt		
Flight No: LM-23	Arrival Airport Elev: 18 ft			Estimated totals for this flight>>>	
					190.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

25. CALCUTTA TO COX'S BAZAR

Note : Runways allocated by the original documentation are Dep. VECC Rwy 01L, Arr. VGCB Rwy 17
Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 18 ft		
Calcutta (VECC), India To Cox's Bazar (VGCB), Bangladesh	Departure: VECC 01L-19R, 01R-19L Before take off, tune ADF to UM NDB (404.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To UM NDB.</i> Turn and fly to NDB.			010	5.2
	<i>To BL NDB (368.0).</i> Track 088° OB from UM NDB. When signal fades out, tune ADF to BL NDB. Fly to NDB when signal is received.			088	102.0
	<i>To CTG VOR/DME(113.40, OBS 111°).</i> Track 111° OB from BL NDB. Tune NAV1 to CTG. Fly to VOR.			111	91.0
	<i>To VGCB .</i> Turn right and track 172° IB to CB NDB (396.0). Fly towards NDB.			172	49.0
	Approach: VGCB 17-35 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Cox's Bazar Airport, runway in use, and land.				
	Length: 6,727 ft	Width: 122 ft	Surface: Concrete		
Flight No: LM-24	Arrival Airport Elev: 11 ft			Estimated totals for this flight>>>	246.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

26. COX'S BAZAR TO THANDWE

*Note : Runways allocated by the original documentation are Dep. VGCB Rwy 17, Arr. VYTD Rwy 20.
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 12 ft		
Cox's Bazar (VGCB), Bangladesh To Thandwe (VYTD), Myanmar	Departure: VGCB 17-35 Before take off, tune ADF to CB NDB (396.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To KP NDB (250.0).</i> After take off, turn and track 144 OB from CB. When signal fades out, tune ADF to KP NDB and fly to NDB. <i>To VYTD.</i> Overhead KP NDB, maintain heading 144°. Tune ADF to TD NDB (270.0), and fly towards NDB.			144	150.0
	Approach: VYTD 02-20 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Mazin Airport, runway in use, and land.			144	73.0
	Length: 8,180 ft				
	Width: 102 ft				
Flight No: LM-25	Surface: Asphalt				
	Arrival Airport Elev: 28 ft				
	Estimated totals for this flight>>>				223.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

27. THANDWE TO YANGOON

Note : Runways allocated by the original documentation are Dep. VYTD Rwy xx, Arr. VYYY Rwy 03.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 28 ft		
Thandwe (VYTD), Myanmar To Yangoon (VYYY), Myanmar	Departure: VYTD 02-20 Before take off, tune ADF to TD NDB (270.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To PTN NDB (415.0).</i> After take off, turn and track 165° OB from TD NDB. Start timer. After 20 minutes flight, tune ADF to PTN. Fly to NDB when signal is received. <i>To MDS NDB (397.0).</i> Turn left and track 088° OB from PTN NDB. Reset timer. After 15 minutes flight, tune ADF to MDS NDB. Fly to NDB.			165	102.0
	Approach: VYYY 03-21 (ILS Rwy 21, IYGN 109.90) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Yangoon Int'l Airport, runway in use, and land.			088	76.0
				035	2.8
	Length: 12,214 ft	Width: 188 ft	Surface: Asphalt		
Flight No: LM-26	Arrival Airport Elev: 78 ft			Estimated totals for this flight>>>	182.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

28. YANGOON TO TAK

Note : Runways allocated by the original documentation are Dep. VYYY Rwy 03, Arr. VTPM Rwy 09.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 78 ft		
Yangoon (VYYY), Myanmar To Tak (VTPM), Thailand	Departure: VYYY 03-21 Before take off, tune ADF to MDN NDB (204.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To MDN NDB.</i> After take off, turn and fly to NDB. <i>To PA NDB (365.0).</i> Track 092° OB from MDN NDB. When crossing the coastline and entering above water, tune ADF to PA NDB. Fly to NDB. <i>To VTPM.</i> Turn right and track 104° OB from MDN NDB. Start timer. At your convenience, tune ADF to MS NDB (316.0). Fly towards NDB.			038	1.6
				092	88.0
				104	51.0
	Approach: VTPM 09-27 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Mae Sot Aero Airport, runway in use, and land.				
	Length: 4,915 ft	Width: 94 ft	Surface: Asphalt		
Flight No: LM-27	Arrival Airport Elev: 683 ft <div>Estimated totals for this flight>>></div>				140.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

29. TAK TO BANGKOK

Note : Runways allocated by the original documentation are Dep. VTPM Rwy 09, Arr. VTBD Rwy 21R.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 683 ft		
Tak (VTPM), Thailand To Bangkok (VTBD), Thailand	Departure: VTPM 09-27 Before take off, tune ADF to MS NDB (316.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To TL NDB (350.0).</i> After take off, turn and track 131° OB from MS NDB. When MS signal fades out, tune ADF to TL NDB. Fly to NDB.			131	133.0
	<i>To LB NDB (280.0).</i> Turn right to 140° and fly to LB NDB.			140	32.0
	<i>To KK NDB (276.0).</i> Turn right and track 183° OB from LB NDB. Start timer. After +/- 13 minutes flight, tune ADF to KK NDB. Fly to NDB when signal is received.			183	56.0
	Approach: VTBD 03L-21R (ILS both sides), 03R-21L (ILS Rwy 21L, IDMG 110.30) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Bangkok Int'l Airport, runway in use, and land.			209	1.4
	Length: 03L-21R 12,107 ft 03T-21L 11,496 ft	Width: 195 ft 142 ft	Surface: Asphalt		
Flight No: LM-28	Arrival Airport Elev: 6 ft			Estimated totals for this flight>>>	223.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

30. BANGKOK TO PRACHUAP

Note : Runways allocated by the original documentation are Dep. VTBD Rwy 21R, Arr. VTBP Rwy 18.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 6,500 ft	Apt Elev: 6 ft		
Bangkok (VTBD), Thailand To Prachuap (VTBP), Thailand	Departure: VTBD 03L-21R, 03R-21L Before take off, tune ADF to KK NDB (276.0). Set altimeter. Take off and start climb to 6,500 ft.				
	Enroute: <i>To HN NDB (213.0).</i> After take off, turn and track 208° OB from KK NDB. When reaching coastline, either follow it south to HN NDB at Hua Hin Airport, or fly direct to HN <i>To VTBP.</i> Overhead HN NDB, turn left and track 190° OB from HN NDB. Tune ADF to PCK NDB (320.0). When signal is received, fly towards NDB.			208	87.0
	Approach: VTBP 08-26, 18-36 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Prachuap Khiri Airport, runway in use, and land.			190	52.0
	Length: 08-26 6,555 ft 18-36 3,445 ft	Width: 105 ft 100 ft	Surface: Asphalt		
Flight No: LM-29	Arrival Airport Elev: 10 ft			Estimated totals for this flight>>>	140.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

31. PRACHUAP TO NAKHON SI THAMMARAT

Note : Runways allocated by the original documentation are Dep. VTBP Rwy 18, Arr. VTSF Rwy 18.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 6,500 ft	Apt Elev: ft		
Prachuap (VTBP), Thailand To Nakhon Si Thammarat (VTSF), Thailand	Departure: VTBP 08-26 Before take off, tune ADF to PCK NDB (320.0). Set altimeter. Take off and start climb to 6,500 ft.				
	Enroute: <i>To CP NDB (279.0).</i> After take off, turn and track 202° OB from PCK NDB. When signal fades out, tune ADF to CP NDB and fly to NDB (approx 8 NM "white" zone between stations). <i>To SR NDB (338.0).</i> Turn and track 188° OB from CP NDB. When signal fades out, tune ADF to SR NDB and fly to NDB. <i>To NK NDB (289.0).</i> Turn left and track 127° OB from SR NDB. start Climb to 7,500 ft. Start timer. Tune ADF to NK NDB and fly to NDB.			202	69.0
				188	96.0
				127	59.0
	Approach: VTSF 01-19 (ILS Rwy 19, INKS 109.70) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Nakhon Si Thammarat Airport, runway in use, and land.			151	0.5
	Length: 6,947 ft	Width: 148 ft	Surface: Asphalt		
Flight No: LM-30	Arrival Airport Elev: 13 ft Estimated totals for this flight>>>				225.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

32. NAKHON SI THAMMARAT TO KUALA TERRENGGANU

Note : Runways allocated by the original documentation are Dep. VTSF Rwy 18, Arr. WMKN Rwy 22.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 13 ft		
Nakhon Si Thammarat (VTSF), Thailand To Kuala Terengganu (WMKN), Malaysia	Departure: VTSF 01-19 Before take off, tune ADF to NK NDB (289.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To SK NDB (410.0).</i> After take off, turn and track 155° OB from NS NDB. Once levelled at cruise altitude, Tune ADF to SK NDB. Fly to NDB. (or follow coastline south until SK signal is received). <i>To PT NDB (201.0).</i> Turn to 127° and fly to NDB (or follow coastline south). <i>To NT NDB (383.0).</i> Turn to 114° and fly to NDB (or follow coastline south). <i>To VKT VOR/DME (115.40, OBS 130°).</i> Turn to 130° and fly to VOR (or follow coastline south).			155	91.0
				127	40.0
				114	39.0
				130	106.0
	Approach: WMKN 04-22 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Sultan Mahmud Airport, runway in use, and land.			183	0.3
	Length: 6,615 ft	Width: 150 ft	Surface: Asphalt		
Flight No: LM-31	Arrival Airport Elev: 19 ft			Estimated totals for this flight>>>	276.0 NM

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London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

33. KUALA TERRENGGANU TO SINGAPORE

Note : Runways allocated by the original documentation are Dep. WMKN Rwy 22, Arr. WSSL Rwy 21.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 19 ft		
Kuala Terengganu (WMKN), Malaysia To Singapore (WSSL), Republic of Singapore	Departure: WMKN 04-22 Before take off, tune NAV1 to VKE VOR/DME (117.10) and set OBS to 159°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To VKE VOR/DME (117.10).</i> After take off, turn to intercept and track 159°. Fly to VOR.			159	54.0
	<i>To KN NDB (349.0).</i> Overhead WMKE, turn right to 195°. Descend to 6,500 ft, Turn on ADF Morse Ident. fly to NDB.			195	48.0
	<i>To WP1.</i> Turn left to 161°. Climb to 7,500 ft. Tune NAV1 to VTK VOR/DME (116.50, OBS 161°) and fly towards VOR. Waypoint reached at DME 7.1 NM from VTK.			161	143.0
	<i>To WSSL.</i> Overhead WP1, turn right to 227°			227	9.6
	Approach: WSSL 03-21 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Seletar Airport, runway in use, and land.				
	Length: 6,019 ft	Width: 145 ft	Surface: Asphalt		
Flight No: LM-32	Arrival Airport Elev: 31 ft			Estimated totals for this flight>>>	254.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

34. SINGAPORE TO PALEMBANG

Note : Runways allocated by the original documentation are Dep. WSSL Rwy 21, Arr. WIPP Rwy 11

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 31 ft		
Singapore (WSSL), Republic of Singapore To Palembang (WIPP), Indonesia	Departure: WSSL 03-21 Before take off, tune ADF to BM NDB (370.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To BM NDB.</i> After take off, turn to intercept 141° IB to BM NDB. Fly to NDB.			141	23.0
	<i>To TI NDB (385.0).</i> Turn left to 116°. Fly to NDB.			116	28.0
	<i>To JMB VOR/DME (117.50, OBS 199°).</i> Turn and track 199° OB from TI NDB. Begin climb to 8,500 ft. Turn on ADF Morse Ident. When signal fades out over open water, Tune NAV1 to JMB VOR and fly to VOR when signal is received. +/- 50 NM Dead Reckoning between stations.			199	162.0
	<i>To PLB VOR/DME (115.50, OBS 141°).</i> Turn and track 141° IB to PLB VOR. Start descend to 7,500 ft.			141	99.0
	Approach: WIPP 11-29 (ILS at both runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Sultan M Badaruddin Li Airport, runway in use, and land.			115	3.1
	Length: 9,822 ft	Width: 144 ft	Surface: Asphalt		
Flight No: LM-33	Arrival Airport Elev: 44 ft			Estimated totals for this flight>>>	
					312.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

35. PALEMBANG TO JAKARTA

Note : Runways allocated by the original documentation are Dep. WIPP Rwy 11, Arr. WIII Rwy 07Lxx

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 44 ft		
Palembang (WIPP), Indonesia To Jakarta (WIII), Indonesia	Departure: WIPP 11-29 Before take off, tune ADF to PLB VOR/DME (115.50) and set OBS to 126°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1 (Coastline).</i> After take off, turn and track 126° OB from PLB VOR. Waypoint reached at the coastline.			126	94.0
	<i>To WP2 (Pulau Rimaubalak, an island).</i> At Coastline, climb to 8,500 ft. Turn to 184° and follow it until Isthmus between Islands. Tune ADF to GL NDB, 324 KHz. Turn on Morse Ident.			184	122.0
	<i>To WP3.</i> Overhead WP2, turn left to 094°. Descend to 7,500 ft. Cross Isthmus to the most northern landpoint. Follow north shore eastward until reaching 120° bearing to GL NDB.			094	15.4
	<i>To CKG VOR/DME (113.60, OBS 122).</i> Overhead WP3, turn to 122° and fly to VOR.			122	35.0
	Approach: WIII 06-24, 07L-25R, 07R-25L (ILS at all runways) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Soekarno-Hatta Int'l Airport, runway in use, and land.			063	8.7
	Length: 06-24 8,201 ft 07L-25R 11,814 ft 07R-25L 12,008 ft	Width: 150 ft 189 ft 187 ft	Surface: Asphalt		
Flight No: LM-34	Arrival Airport Elev: 26 ft			Estimated totals for this flight>>>	
					275.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

36. JAKARTA TO SOLO

Note : Runways allocated by the original documentation are Dep. WIII Rwy 07R, Arr. WARQ Rwy 08.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 26 ft		
Jakarta (WIII), Indonesia To Solo (WAHQ), Indonesia	Departure: WIII 07L-25R, 07R-25L Before take off, tune ADF to AL NDB (215.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute:				
	To AL NDB (215). After take off, turn and track 100° IB to AL NDB.			100	23.0
	To PW NDB (250). Overhead AL NDB, turn right to 132°. Fly to NDB.			132	33.0
	To OZ NDB (385). Overhead PW NDB, turn left to 085°. Fly to NDB.			085	14.0
	To CA NDB (365). Overhead OZ NDB, turn right and track 099° OB from OZ NDB. When signal fades out, tune ADF to CA NDB. Fly to NDB.			099	53.0
	To OC NDB (350.0). Follow coastline eastward. When CA NDB signal fades out, tune ADF to OC, and fly to NDB.			098	110.0
	To SO NDB (255.0). Overhead OC NDB, turn to 145°. Track 144° IB to SO NDB. Fly to NDB.			145	39.0
	Approach: WAHQ 08-26 (ILS Rwy 26, ISLO 111.50) To runway. As soon as airport is in sight, adjust heading, fly to Adi Sumarmo Int'l. Airport, runway in use, and land.			110	0.3
	Length: 8,511 ft	Width: 149 ft	Surface: Asphalt		
Flight No: LM-35	Arrival Airport Elev: 399 ft			Estimated totals for this flight>>>	273.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

37. SOLO TO DENPASAR

Note : Runways allocated by the original documentation are Dep. WARQ Rwy 08, Arr. WADD Rwy 09.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 399 ft		
Solo (WAHQ), Indonesia To Denpasar (WADD), Indonesia	Departure: WAHQ 08-26 Before take off, tune ADF to SO NDB (255.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1 (Pulau Siklopo).</i> After take off, turn and track 131° OB from SO NDB. Fly upto coastline. When/if signal fades out or disappears, monitor and maintain heading. Waypoint reached when overhead the center of the island. <i>To BLI VOR/DME (116.20, OBS 096).</i> Turn east at coastline and follow south coastline. From the most easterly tip of East Java, you fly over the southern access from the Indian Ocean to the Bali Strait, on your way to Denpasar.			131	78.0
	Approach: WADD 09-27 (ILS Rwy 27, IDPS 110.30) <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Bali Int'l Airport, runway in use, and land.			096	205.0
				061	0.4
	Length: 9,829 ft	Width: 148 ft	Surface: Asphalt		
Flight No: LM-36	Arrival Airport Elev: 14 ft			Estimated totals for this flight>>>	
					283.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

38. DENPASAR TO WAINGAPU

Note : Runways allocated by the original documentation are Dep. WADD Rwy 08, Arr. WADW Rwy 09.

Check weather reports and select appropriate runways.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 14 ft		
Denpasar (WADD), Indonesia To Waingapu (WATU), Indonesia	Departure: WADD 09-27 Before take off, tune NAV1 to BLI VOR/DME (116.20) and set OBS to 089. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To WP1. After take off, turn and track 089° OB from BLI VOR. Cross open water. Waypoint reached at Nusa Penida island land point.			089	16.8
	To WP2. Fly along southern coast of Island up to tip of island..			117	9.1
	To WP3. Cross open water to Lombok island land point.			090	15.4
	To WP4. Follow southern coastline to southern tip of the Taman Wisata Perairan Teluk Bumbang (a marine recreational park).			103	32.0
	To WP5. Cross open water to Sumbawa island land point.			097	21.0
	To WP6. Follow southern coastline to land point.			109	17.9
	To WP7. Follow southern coastline to land point.			079	52.0
	To WP8 (Tip of island). Follow southern coastline.			082	64.0
	To WK NDB (301.0). Cross open water. Check that ADF is tuned to NR NDB (295.0). Waypoint reached overhead Tambolaka Airport.			153	40.0
	To WP9. Follow northern coastline to most northern land point in sight.			078	41.0
	To WP10. Turn right to next land point. Begin 350 fpm descent. Tune NAV1 to WGP VOR/DME (117.30, OBS 151°). Waypoint reached when neele centers.			127	19.2
	To WATU. Overhead WP10, turn right to 150° and fly towards WGP.			151	13.3
	Approach: WATU 15-33 To runway. As soon as airport is in sight, adjust heading, fly to Mau Hau Airport, runway in use, and land.				
Length: 6,045 ft			Width: 97 ft	Surface: Asphalt	
Flight No: LM-37	Arrival Airport Elev: 20 ft			Estimated totals for this flight>>>	
			343.0 NM		

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

39. WAINGAPU TO KUPANG

*Note : Runways allocated by the original documentation are Dep. WADW Rwy 15, Arr. WATT Rwy 07;
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 20 ft		
Waingapu (WATU), Indonesia To Kupang (WATT), Indonesia	Departure: WATU 15-33 Before take off, tune ADF to WGP VOR/DME (117.30) and set OBS to 093°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1 (coastline).</i> Turn and track 093° OB from WGP. Fly to coastline.			093	14.1
	<i>To WP2 (tip of Sumba island).</i> Fly south-east along coastline to tip of Island.			139	28.0
	<i>To WP3 (northern tip of Sawu island).</i> Cross open water to Sawu north coastline.			109	67.0
	<i>To WP4 (Ndao island).</i> Cross open water to the first available island on this heading.			117	51.0
	<i>To WP5 (northern tip of Rote island).</i> Overhead WP4, turn to 060°. Tune NAV1 to KPG VOR/DME (112.20) and set OBS to 048°. Follow east coast of Rote Island (Pulau Rote in Indonesian) up to its northern tip, which is your waypoint.			060	48.0
	<i>To WATT.</i> Overhead WP5, turn to 046°. NAV1 needle should be centered. Fly towards KPG VOR.			046	23.0
	Approach: WATT 07-25 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to El Tari Airport, runway in use, and land.				
	Length: 8,207 ft	Width: 148 ft	Surface: Asphalt		
Flight No: LM-38	Arrival Airport Elev: 335 ft Estimated totals for this flight>>>				231.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

40. KUPANG TO DARWIN

Note : Runways allocated by the original documentation are Dep. WATT Rwy 07, Arr. YPDN Rwy 11.

Check weather reports and select appropriate runways.

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 335 ft		
Kupang (WATT), Indonesia To Darwin (YPDN), Australia	Departure: Before take off, tune NAV1 to KPG VOR/DME (112.20) and set OBS to 107°. Set altimeter. Take off and start climb to 7,500 ft.				
	En route: <i>To KPG VOR.</i> After take off, turn and fly to VOR. <i>To BGT NDB (308.0).</i> Overhead KPG, turn and track 107° (set OBS accordingly) from KPG. 423 NM Open Water to cross to reach Australia coastline. Start timer. Continue tracking 107° until signal fades, then about 330 NM Dead Reckoning before BGT NDB (in Australia) signal is received. When KPG signal is lost, tune ADF to BGT NDB, and maintain 107° heading. When BGT becomes active, adjust heading accordingly.			067	1.8
	Approach: YPDN 11-29 (ILS Rwy 29, IDN 109.70), 18-36 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Darwin Int'l Airport, runway in use, and land.			107	443.0
	Length: 11-29 11,005 ft 18-36 4,994 ft	Width: 200 ft 98 ft	Surface: Asphalt	110	1.3
Flight No: LM-39	Arrival Airport Elev: 91 ft			Estimated totals for this flight>>>	
					446.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

41. DARWIN TO NGUKURR

*Note : Runways allocated by the original documentation are Dep. YPDN Rwy 11, Arr. YNGU Rwy 11.
Check weather reports and select appropriate runways.*

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 91 ft		
Darwin (YPDN), Australia To Ngukurr (YNGU), Australia	Departure: YPDN 11-29, 18-36 Before take off, tune NAV1 to DN VOR/DME (112.60) and set OBS to 104°. Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To DN VOR.</i> After take off, turn and fly to NDB.			104	1.8
	<i>To YNGU.</i> Overhead DN, turn to 120°. Set DN OBS to, and track 120° OB from DN VOR. When DN signal fades out, Dead Reckoning to destination on same heading.			120	263.0
	Approach: YNGU 11-29 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Ngukurr Airport, runway in use, and land.			071	0.5
	Length: 5,015 ft	Width: 59 ft	Surface: Asphalt		
Flight No: LM-40	Arrival Airport Elev: 36 ft Estimated totals for this flight>>>				265.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

42. NGUKURR TO MORNINGTON ISLAND

*Note : Runways allocated by the original documentation are Dep. YNGU Rwy 11, Arr. YMTI Rwy 11
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 36 ft		
Ngukurr (YNGU), Australia To Mornington Isl. (YMTI), Australia	Departure: YNGU 11-29 Before take off, set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1 (coastline, Limmen Bight River mouth).</i> After take off, turn to 109°. Watch heading. Waypoint reached at the northern tip of the island located in the middle of river's mouth.			109	61.0
	<i>To WP2.</i> Turn to 117°. Follow coastline South East and East. On the way, you will cross the Sir Edward Pellew group of islands (North-East of Borroloola). Waypoint reached at Calvert River mouth.			117	136.0
	<i>To WP3.</i> Turn right to 126°, following coastline South East and East. Waypoint reached at Massacre Inlet mouth.			126	44.0
	<i>To YMTI.</i> Turn left to 080° and fly towards Mornington Island Airport, in front of Denham Island northern tip.			080	49.0
	Approach: YMTI 09-27, 13-31 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Mornington Island Airport, runway in use, and land.				
	Length: 09-27 4,977 ft 13-31 2,709 ft	Width: 98 ft 49 ft	Surface: Asphalt Grass		
Flight No: LM-41	Arrival Airport Elev: 31 ft Estimated totals for this flight>>>				290.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

43. MORNINGTON ISLAND TO CLONCURRY

Note : Runways allocated by the original documentation are Dep. YMTA Rwy 06, Arr. YCCY Rwy 12.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 31 ft		
Mornington Isl. (YMTI), Australia To Cloncurry (YCCY), Australia	Departure: YMTI 09-27, 12-30 Before take off, set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To CCY NDB (264.0). After take off, turn and track 158° OB from YMTI. Start timer. About 140 NM Dead Reckoning before CCY NDB signal is received. Fly towards NDB and adjust heading accordingly.			158	252.0
	Approach: YCCY 06-24, 12-30 To runway. As soon as YCCY airport is in sight, adjust heading, fly to Cloncurry Airport, runway in use, and land.				
	Length: 06-24 3,812 ft 12-30 6,553	Width: 126 ft 90 ft	Surface: Asphalt		
Flight No: LM-42	Arrival Airport Elev: 612 ft			Estimated totals for this flight>>>	252.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

44. CLONCURRY TO LONGREACH

Note : Runways allocated by the original documentation are Dep. YCCY Rwy 12, Arr. YLRE Rwy 22.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 612 ft		
Cloncurry (YCCY), Australia To Longreach (YLRE), Australia	Departure: YCCY 06-24, 12-30 Before take off, tune ADF to CCY NDB (264.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To LRE NDB (353.0).</i> After take off, turn and track 123° OB from CCY NDB. Start timer. When signal fades out, tune ADF to LRE NDB. Fly to NDB.			123	268.0
	Approach: YLRE 04-22 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Longreach Airport, runway in use, and land.				
	Length: 04-22 6,329 ft	Width: 93 ft	Surface: Asphalt		
Flight No: LM-43	Arrival Airport Elev: 625 ft			Estimated totals for this flight>>>	268.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

45. LONGREACH TO CHARLEVILLE

Note : Runways allocated by the original documentation are Dep. YLRE Rwy 04, Arr. YBCB Rwy 22.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: 625 ft		
Longreach (YLRE), Australia To Charleville (YBCB), Australia	Departure: YLRE 04-22, 09-27 Before take off, tune ADF to LRE NDB (353.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: To YBCV. After take off, turn and track 142° OB from LRE NDB until signal fades out. Tune ADF to CV NDB (269), and fly towards CV NDB.			142	209.0
	Approach: YBCB 12-30, 18-36 To runway. As soon as airport is in sight, adjust heading, turn and fly to Charleville Airport, runway in use, and land.				
	Length: 12-30 4,989 ft 18-36 3,497 ft	Width: 94 ft 74 ft	Surface: Asphalt		
Flight No: LM-44	Arrival Airport Elev: 995 ft			Estimated totals for this flight>>>	209.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

46. CHARLEVILLE TO NYNGAN

Note : Runways allocated by the original documentation are Dep. YBCB Rwy 12, Arr. YNYN Rwy 19.

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: ft		
Charleville (YBCB), Australia To Nyngan (YNYN), Australia	Departure: YBCB 12-30, 18-36 Before take off, tune ADF to CV NDB (269.0). Set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1.</i> After take off, turn and track 163° OB from CV NDB until signal fades. Then, Dead Reckoning. Waypoint reached overhead YBRW (Brewarrina airport). <i>To YNYN.</i> Overhead WP1, turn slightly left to 159°. Fly to the airport.			163 159	216.0 97.0
	Approach: YNYN 05-23, 18-36 <i>To runway.</i> As soon as airport is in sight, adjust heading, fly to Nyngan Airport, runway in use, and land.				
	Length: 05-23 5,391 ft 18-36 3,880 ft	Width: 92 ft 291 ft	Surface: Asphalt hard-packed surface		
	Flight No: LM-45 Arrival Airport Elev: 567 ft Estimated totals for this flight>>>				313.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

47. NYNGAN TO ALBURY

Note : Runways allocated by the original documentation are Dep. YNYN Rwy 19, Arr. YMAY Rwy 25

Check weather reports and select appropriate runways.

From – To	<u>Flight Description</u>			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 7,500 ft	Apt Elev: ft		
Nyngan (YNYN), Australia To Albury (YMAY), Australia	Departure: YNYN 05-23, 18-36 Before take off, set altimeter. Take off and start climb to 7,500 ft.				
	Enroute: <i>To WP1 (YCDO).</i> After take off, turn and track 169° OB from YNYN. At 20 minutes flight from take off, tune ADF to CDO NDB. Fly to NDB. Stop and reset timer.			169	91.0
	<i>To WP2 (YWWL).</i> Turn and track 170° OB from CDO NDB. Fly to waypoint.			170	52.0
	<i>To WP3 (YTEM).</i> Overhead YWWL, turn left to 140°. Fly to waypoint.			140	33.0
	<i>To WG NDB (221.0).</i> Overhead YTEM, turn right to 172°. Fly to NDB..			172	45.0
	<i>Towards AY NDB (236.0).</i> Overhead WG, turn to 192°. Start timer. Tune ADF to AY NDB. Fly towards NDB.			192	59.0
	Approach: YMAY 07-25 <i>To runway.</i> As soon as YMAY airport is in sight, adjust heading, fly to Albury Airport, runway in use, and land.			263	0.4
	Length: 6,220 ft	Width: 93 ft	Surface: Asphalt		
Flight No: LM-46	Arrival Airport Elev: 539 ft			Estimated totals for this flight>>>	281.0 NM

London to Melbourne Air Race – 1934 *(The MacRobertson Trophy Air Race)*

48. ALBURY TO MELBOURNE

*Note : Runways allocated by the original documentation are Dep. YMAY Rwy 25, Arr. YMML Rwy 16.
Check weather reports and select appropriate runways.*

From – To	Flight Description			Course (Leg) Deg	Distance (Leg) NM
	Dep. Rwy : check WX	Init. Alt: 6,500 ft	Apt Elev: 535 ft		
Albury (YMAY), Australia To Melbourne (YMML), Australia	Departure: YMAY 07-25 Before take off, tune ADF to COR NDB (380.0). Set altimeter. Take off and start climb to 6,500 ft.				
	Enroute: To COR NDB (380.0). After take off, turn and track 267° IB to COR NDB. Fly to NDB.			267	30.0
	To SHT NDB (212.0). Overhead COR NDB turn to 228°. Fly to NDB.			228	54.0
	To ML VOR/DME (114.10). Overhead SHT NDB, turn left to 188°. Set NAV1 OBS to 188°. Fly to VOR.			188	79.0
	Approach: YMML 09-27 (ILS Rwy 27, IMW 109.30) , 16-34 (ILS Rwy 16, IMS 109.70) To runway. As soon as airport is in sight, adjust heading, fly to Melbourne Int'l. Airport, runway in use, and land.			163	0.8
	Length: 09-27 7,502 ft 16-34 11,992	Width: 143 ft 190 ft	Surface: Asphalt		
Flight No: LM-47	Arrival Airport Elev: 391 ft			Estimated totals for this flight>>>	163.0 NM