

CALCULATION OF RADIUS OF ACTION AS SUGGESTED BY HAWKER
AIRCRAFT AT 5,000 FT. IN H.S. OR EQUIVALENT

TEMPEST II - 160 GALLS

Conditions	R.P.M.	BOOST	CONSUMPTION		T.A.S.	RANGE MILES
			GALLS/HR.	TOTAL		
5 mins. at take-off	2700	+8	250	21	-	-
Climb 5,000 ft. (2 mins)	2100	+2	80	3	-	8
Combat. (5 mins)	2700	+12	280	23	-	-
Fast cruising (15 mins)	2100	+2	82	21	320	80
Balance at economical	1600	-2	48	92	255	488
<u>TOTALS</u>				<u>160</u>		<u>576</u>
Less 20%						<u>115</u>
						<u>461</u>
					<u>Radius</u>	<u>230</u>
<u>Plus 2 x 45 drop tanks</u>						
First part as above	-	-	-	68	-	88
Balance at economical	1600	-2	48	182	250	948
<u>TOTALS</u>				<u>250</u>		<u>1036</u>
Less 20%						<u>207</u>
						<u>829</u>
					<u>Radius</u>	<u>414</u>

TEMPEST V - 160 GALLS

Conditions	R.P.M.	BOOST	CONSUMPTION		T.A.S.	RANGE MILES
			GALLS/HR.	TOTAL		
5 mins. at take-off	3700	+9	195	16	-	-
Climb 5,000 ft. (2 mins)	3150	+3	-	4	-	8
Combat. (5 mins)	3700	+11	220	18	-	-
Fast cruising (15 mins)	2600	+0	68	17	290	72
Balance at economical	2600	-5	45	105	220	513
<u>TOTALS</u>				<u>160</u>		<u>593</u>
Less 20%						<u>119</u>
						<u>474</u>
					<u>Radius</u>	<u>237</u>
<u>Plus 2 x 45 drop tanks</u>						
First Part as above	-	-	-	55	-	80
Balance at economical	2600	-5	45	195	215	931
<u>TOTALS</u>				<u>250</u>		<u>1011</u>
Less 20%						<u>202</u>
						<u>809</u>
					<u>Radius</u>	<u>404</u>

THUNDERBOLT II - 309 GALLS

<u>Conditions</u>	<u>R.P.M.</u>	<u>BOOST</u>	<u>CONSUMPTION</u>		<u>T.A.S.</u>	<u>RANGE MILES</u>
			<u>GALLS/HR.</u>	<u>TOTAL</u>		
5 mins. at take-off	2700	52"	230	19	-	-
Climb 5,000 ft. (3 mins)	2250	32"	85	5	-	10
Combat (5 mins water inj)	2700	58"	215	18	-	-
Fast cruising. (15 mins)	2250	32"	85	21	275	69
Balance at economical	1800	30"	52	246	220	1040
<u>TOTALS</u>				<u>309</u>		<u>1119</u>
Less 20%						<u>895</u>
						<u>224</u>
						<u>895</u>
					<u>Radius</u>	<u>447</u>
<u>Plus 2 x 138 drop tanks</u>						
First part as above	-	-	-	63	-	79
Balance at economical	1800	30"	52	522	190	1910
<u>TOTALS</u>				<u>585</u>		<u>1989</u>
Less 20%						<u>398</u>
						<u>1591</u>
					<u>Radius</u>	<u>795</u>

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