BY ORDER OF THE SECRETARY OF THE AIR FORCE

AFI 11-2C-130V3 CL-3
13 APRIL 2000

Flying Operations

COCKPIT CREW TACTICAL OPERATIONS

This checklist establishes procedures for the operation of C-130 aircraft employed by Mobility Air Forces (MAF) to accomplish their worldwide missions.

This checklist complements AFI 11-2C-130V3, *C-130 Operations Procedures*, and is printed on standard 8 ½" x 11" bond paper then trimmed to a unique size 4 ½ " x 6 ½" that will fit the standard plastic C-130 aircrew checklist binders. Units may request copies of this checklist printed on a water proof-based media (in the size outlined) from the OPR. This product reduces weight and eliminates the need for plastic inserts. Limit water proof copies to aircrew only for use in-flight and training purposes.

CABIN ALTITUDE CHECKLIST 2
COMBAT ENTRY CHECKLIST (COCKPIT CREW) 2
PRE-SLOWDOWN CHECKLIST 4
SLOWDOWN CHECKLIST 5
RELEASE POINT CHECKLIST 6
COMPLETION OF DROP CHECKLIST 6
COMBAT EXIT CHECKLIST 7
COMBAT OFFLOAD PREPARATION CHECKLIST 8
METHOD "A" OFFLOAD CHECKLIST 9
METHOD "B" OFFLOAD CHECKLIST 11
ASA OFFSET TABLES 12
SKE TABLES 14
MULTIPLE POINT OF IMPACT OFFSET CHART 16
CDS/RAMP CONTAINER BUNDLE FLAP SETTING TABLES 18
STALL SPEED TABLES 20
IN-TRACK DISTANCES IN FEET 24
ENROUTE FORMATION SKE TIMING TABLE (SECONDS) 34

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CABIN ALTITUDE CHECKLIST

(AIRDROPS ABOVE 10,000 FEET MSL)

1. **"CABIN ALTITUDE CHECK"** (P)
   10,000 ft
   15,000 ft
   20,000 ft - Every 15 minutes or every 5,000 feet increase in altitude, which ever comes first.
   30,000 ft or above - Every 5 minutes.
2. **"ACKNOWLEDGED"** (CP, E, N, LM)
3. Aircraft Oxygen System - **"CHECKED"** (CP)
4. "**CABIN ALTITUDE CHECK-COMPLETE**" (LM, E)

COMBAT ENTRY CHECKLIST (COCKPIT CREW)

*1. **"CREW, COMBAT ENTRY CHECKLIST"** (N)

*2. **"ACKNOWLEDGED"** (P, CP, E, LM)

*3. Altimeters - **"SET (State Setting)"** (CP, P, N)

*4. Ingress/Egress--**"REVIEWED"** (As Required) (P CP, N)
   A. Review intentions, altitudes, airspeeds, crew coordination, threat locations, drift, run-in, and aircraft configuration, as required.
   B. Compute and post stall speeds for 0 and 45 degrees bank with flaps at 0 and 50 percent.
   C. If performing a heavy equipment drop, compute and post Max Effort Takeoff Speed (Vmeto) for aircraft at airdrop weight.

*5. Survival Equipment - **"DONNED"** (As Required) (P, CP, E, N, L)

All cockpit crewmembers will ensure the following equipment is immediately available and functional (as required):

A. Parachute

B. Survival Vest

C. Flak Vest

D. Chemical Defense Ensemble

E. Helmet and Oxygen

F. Life Preserver Units (LPU)

G. Weapons

6. Fuel - Tank to Engine (As Required) (E)

*7. Pressurization - Depressurizing (As Required) (E)

8. Dump Manifold - **"PURGED"** (As Required) (LM, P) Pilot will cross control the aircraft to drain the manifold.

CAUTION

Ensure defensive system PRG/MAN button is set to MAN during purging operations.

NOTE

It is not necessary to purge the dump manifold on aircraft equipped with dump valve switches.

*9. EMI Filter/Safety Pins - **"REMOVED"** (As Required) (LM)

*10. Defensive Systems - **"ARMED"** (As Required) (N)

*11. Cockpit - Secure (E) Ensure all items are secure.

*12. Radar Altimeter - **"SET (State Setting)"** (P, N) If a threat warrants, the radar altimeter may be turned off to reduce emissions.

*13. GCAS/GPWS (If Installed) - **"SET"** (as required) (P/CP)

*14. Unnecessary Equipment - **"OFF"** (P, CP, E, N). To reduce emissions turn off all nonessential items.

*15. IFF - **"SET"** (As Required) (CP)

16. Synchrophaser Master - OFF (As Required) (E)

*17. Lookouts - **"CLEARED TO POSITION"** (As Required) (P)

NOTE

Pilot will assign sectors to crewmembers for threat scanning.

*18. Pressurization - No Pressure/Aux Vent/Manual Press (As Required) (E)

NOTE

Aux Vent may be selected once the aircraft is depressurized if the threat area does not contain a chemical, biological, or radiological (CBR) hazard.

19. Bleed Air Valves/Regulators - (As Required) (E)

NOTE

If the threat area contains a CBR hazard, close the engine bleed valves/regulators, select Manual pressurization, and close the outflow valve.

20. Exterior Lights - **"SET"** (E)

NOTE

Ensure cockpit lighting is set/taped for NVG operations (As Required)

21. Interior Lights - **"SET"** (P, CP, E, N, LM)

22. NVGs - **"ON/READY"** (As Required) (P, CP, E, N, LM)

23. Combat Entry Checklist- **"COMPLETE"** (LM, E)

PRE-SLOWDOWN CHECKLIST

1. **"CREW, PRE-SLOWDOWN CHECKLIST"** (N)
2. **"ACKNOWLEDGED LOADMASTER"** (LM)
3. Slowdown, Drop Zone, and Escape - **"REVIEWED"** (P, CP, N)
4. Pressurization - Depressurizing (E)
5. CDS/Ramp Container Bundle Flap Setting - **"COMPUTED (State Setting)"** (As Required) (E)

6. Altimeters - "**SET (State Setting)"** (CP, P, N)
7. Red Light - **"ON"** (CP)
8. Drift, Ground Speed, Altimeter Setting - **"RELAYED"** (N) (AWADS/SKE Formation Lead Only)
9. Pressurization - No Pressure/Aux Vent/Manual (E)
10. Computer Airdrop Information - **"CHECKED"** (N) (AWADS/ZM)
11. SKE Secondary Control Panel - **"SET"** (CP) (SKE/AWADS Element Lead and Wingmen Only)
12. SKE Antenna (For SKE ZM Drops) - **"BOTTOM"** (CP)
13. ZM Select Switch (For SKE ZM Drops) - **"ON"** (P)
14. Left Rail Locks - **"RETRACTED"** (Heavy Equipment Drops Only) (LM)
15. Airdrop/Troop CMPTR-MAN Select Switch - **"AS REQUIRED"** (State Setting) (CP)
16. **"PRE-SLOWDOWN CHECKLIST - COMPLETE"** (LM, E)

SLOWDOWN CHECKLIST

1. **"30 SECONDS TO SLOWDOWN"** (N)
2. **"5 SECONDS TO SLOWDOWN"** (N)
3. At Slowdown Point - **"SLOWDOWN NOW"** (N)
4. Flaps - **"50 PERCENT"** (P/CP)
5. Auxiliary Hydraulic Pump - **"ON"** (As Required) (CP)
6. Air Deflector Doors (As Required) - **"OPEN"** (CP)
7. Ramp And Door (If Required) - "**CLEAR TO OPEN "** (LM), **"INDICATES OPEN"**(E)
8. Drift - **"RELAYED"**(If Required) (AWADS/SKE Formation Lead Only) (N)

9. Flaps (CDS and Ramp Container Bundle Only) - "**RESET, (State Setting)"** (As Required) (P/CP)

10. **"SLOWDOWN CHECKLIST - COMPLETE"** (LM, E)

RELEASE POINT CHECKLIST

1. **"CREW, ONE MINUTE ADVISORY"** (N), **"ACKNOWLEDGED "** (LM)

2. **"FIVE SECONDS"** (N)

3. "**GREEN LIGHT"** (N), **"ON"** (CP)

4. **"LOAD CLEAR"** (or Condition) (LM)

COMPLETION OF DROP CHECKLIST

1. **"RED LIGHT"** (N), **"ON"** (CP)

2. Flaps (CDS and Ramp Container Bundle Only) - **"50 PERCENT"** (P/CP)

3. Paratroop Door(s) (If Required) -**"CLOSED AND LOCKED"** (LM)

4. Air Deflector Doors (If Required) - **"CLOSED"** (CP)

5. Ramp And Door (If Required) - **"CLEAR TO CLOSE "** **"CLOSED AND LOCKED "** (LM), **"CLOSED, DOOR LIGHT OUT"** (E)

6. SKE Antenna (For SKE ZM Drops) - **"TOP"** (CP)

7. Secondary Control Panel - **"SET"**(SKE/AWADS Element Lead and Wingmen Only) (CP)

8. Acceleration - **"ACCELERATE NOW"** (N)

9. Flaps - **"UP"** (P/CP)

10. Airdrop/Troop Jump CMPTR-Man Select Switch -**"AS REQUIRED"** (CP)

11. Red Light - **"OFF"** (CP)

12. Auxiliary Pump - **"OFF"** (CP) (If Required)
13. Pressurization - As Required (E)
14. **"DROP CHECKLIST - COMPLETE"** (LM, E)

COMBAT EXIT CHECKLIST

This checklist returns the aircraft to normal cruise configuration upon departing the combat environment.

1. **"CREW, COMBAT EXIT CHECKLIST" -** (N)
2. **"ACKNOWLEDGED" -** (P, CP, E, LM)
3. NVGs - **"OFF"** (As Required) (P, CP, E, N, LM)
4. Interior Lights - **"SET"** (P, CP, E, N, LM)

NOTE

If NVG operations are to be subsequently resumed or if performing a tactical recovery from a low-level route, cockpit lighting may remain set at NVG lighting levels as long as flight instruments are sufficiently visible.

5. Exterior Lights - **"SET"** (E)
6. Altimeters - **"SET (State Setting)"** (CP, P, N)
7. Radar Altimeter - **"SET (State Setting)"** (P, N)
8. GCAS/GPWS (If Installed) - **"SET"** (as required) (P/CP)
9. Survival Equipment - **"STOWED"** (As Required) (P, CP, N, E, LM)
10. Necessary Equipment - **"SET"** (P, CP, E, N).
11. Bleed Air Valves/Regulators - (As Required) (E)
12. Pressurization - (As Required) (E)
13. Fuel Panel - (As Required) (E)

14. Synchrophase Master - SET (As Required) (E)
15. IFF - **"SET"** (As Required) (CP)
16. Defensive Systems - **"SAFE/OFF"** (N)
17. EMI Filter/Safety Pins (Some Acft) - **"INSTALLED"** (LM)
18. Combat Exit Checklist **"COMPLETE"** (LM, E)

COMBAT OFFLOAD PREPARATION CHECKLIST

1. **"CREW, COMBAT OFFLOAD PREPARATION CHECKLIST"** (P)
2. **"ACKNOWLEDGED"** (CP, E, N, LM)
3. Crew Briefing - **"COMPLETE"** (P)
4. Hot Mic - **"ON"** (P, CP, E, N)
5. Interphone/PA System - **"CHECKED"** (P, CP, E, N, LM)
   A. Interphone and PA System Switch placed to the INTERPHONE/PA position. (P)
   B. Power - ON (N)
   C. Speaker Selector - All (N)
   D. Hot Mic - ON (N)

WARNING

A safety observer will take position at the bottom of the flight deck ladder to monitor all personnel and cargo movement and transmit, over interphone, a verbal warning to any personnel.

CAUTION

Hot Mic communications are not transmitted over the PA system. If emergency communications with the cargo compartment is required, the interphone switch must be depressed.

6. Ramp and Door-**"CLEAR TO OPEN"** (P) **"OPENED"** (LM)
7. Aircraft - Positioned and Stopped (P)
8. Offload Preparation Checks - **"COMPLETE"** (LM, E)

METHOD "A" OFFLOAD CHECKLIST

1. **"CREW, METHOD A OFFLOAD CHECKLIST"** (P)
2. **"ACKNOWLEDGED"** (CP, E, N, LM)
3. Brakes - **"SET"** (P)
4. Taxi Clearance - **"CLEAR TO TAXI"** (LM)
5. Power - **"SET"** (P). Initiate this challenge after receiving taxi clearance from the Loadmaster.

NOTE

Advance power to approximately 5,000 inch/lbs of torque. This setting will vary depending upon surface weight, slope, wind, aircraft weight, and cargo weight.

6. Brakes - **"RELEASED"** (P)

CAUTION

Taxi the aircraft in a straight line. Any attempt to turn the aircraft during offload may damage the aircraft.

7. **"LOAD CLEAR"** (LM)

8. Brakes - (as required) (P). Pilot may either continue taxiing or stop the aircraft if required due to ramp space to subsequent offloads.

WARNING

Do not stop aircraft until LM reports "LOAD CLEAR".

NOTE

Repeat steps 3-6 for remaining pallets/platforms/CDS.

NOTE

If space is limited and the offload environment permits, normal aircraft backing procedures may be used to provide maximum offload space.

9. Interphone /PA Switch - **"INTERPHONE"** (P)

10. Interphone Panel - **"SET"** (P, CP, E, N)

11. Combat Offload Checks - **"COMPLETE"** (LM, E)

METHOD "B" OFFLOAD CHECKLIST

1. **"CREW, METHOD B COMBAT OFFLOAD CHECKLIST"** (P)

NOTE

Allow sufficient forward space to permit uninterrupted offload.

2. **"ACKNOWLEDGED"** (CP, E, N, LM)
3. Brakes - **"SET"** (P)
4. Taxi Clearance - **"CLEAR TO TAXI"** (LM)
5. Brakes - **"RELEASED"** (P) Taxi very slowly forward until notified to stop by the loadmaster. (Initiate this action after the loadmaster reports clear to taxi.)
6. **"STOP"** (LM)
7. Brakes - **"SET"** (P) (Stop the airplane and initiate this challenge after the loadmaster reports STOP.) Repeat steps 4 through 7 until offload is complete.
8. **"LOAD CLEAR"** (LM)

NOTE

If additional married pallets are to be offloaded, repeat procedures beginning with step 3, or method "A" for single pallets. If method "A" is to be performed, consider moving the offload site away from any married pallets resting on 55-gallon drums.

9. Interphone/PA Switch - **"INTERPHONE"** (P)
10. Interphone Panel - **"SET"** (P, CP, E, N)
11. Combat Offload Checks - **"COMPLETE"** (LM, E)

ASA OFFSET DISTANCE

LEFT DRIFT	GND ACFT RIGHT OF RUNWAY	GND ACFT LEFT OF RUNWAY
0 degree	200L	200R
1 degree	100L	300R
2 degrees	0	400R
3 degrees	100R	500R
4 degrees	200R	600R
5 degrees	300R	700R
6 degrees	400R	800R
7 degrees	500R	900R
8 degrees	600R	1000R
9 degrees	800R	1200R
10 degrees	900R	1300R
11 degrees	1000R	1400R
12 degrees	1100R	1500R
13 degrees	1200R	1600R
14 degrees	1300R	1700R
15 degrees	1400R	1800R
16 degrees	1500R	1900R
17 degrees	1600R	2000R
18 degrees	1700R	2100R
19 degrees	1800R	2200R
20 degrees	1900R	2300R

ASA OFFSET DISTANCE

RIGHT DRIFT	GND ACFT RIGHT OF RUNWAY	GND ACFT LEFT OF RUNWAY
0 degree	200L	200R
1 degrees	300L	100R
2 degrees	400L	0
3 degrees	500L	100L
4 degrees	600L	200L
5 degrees	700L	300L
6 degrees	800L	400L
7 degrees	900L	500L
8 degrees	1000L	600L
9 degrees	1200L	800L
10 degrees	1300L	900L
11 degrees	1400L	1000L
12 degrees	1500L	1100L
13 degrees	1600L	1200L
14 degrees	1700L	1300L
15 degrees	1800L	1400L
16 degrees	1900L	1500L
17 degrees	2000L	1600L
18 degrees	2100L	1700L
19 degrees	2200L	1800L
20 degree	2300L	1900L

SKE DRIFT OFFSET CHART

RIGHT DRIFT	ELEMENT LEADS	RIGHT WINGMAN	LEFT WINGMAN
0 degree	0	300R	300L
1 degree	200L	300L	200R
2 degrees	400L	300L	100R
3 degrees	600L	200L	400L
4 degrees	800L	300L	600L
5 degrees	1000L	300L	700L
6 degrees	1300L	400L	800L
7 degrees	1500L	500L	1000L
8 degrees	1700L	600L	1100L
9 degrees	1900L	600L	1300L
10 degrees	2100L	700L	1400L
11 degrees	2300L	800L	1600L
12 degrees	2600L	800L	1700L
13 degrees	2800L	900L	1800L
14 degrees	3000L	1000L	2000L
15 degrees	3200L	1100L	2100L
16 degrees	3400L	1100L	2300L
17 degrees	3700L	1200L	2400L
18 degrees	3900L	1300L	2600L
19 degrees	4100L	1400L	2800L
20 degrees	4400L	1500L	2900L

NOTE: Section lead use 0 offset

SKE DRIFT OFFSET CHART

LEFT DRIFT	ELEMENT LEADS	RIGHT WINGMAN	LEFT WINGMAN
0 degree	0	300R	300L
1 degree	200R	300R	200L
2 degrees	400R	300R	100L
3 degrees	600R	200R	400R
4 degrees	800R	300R	600R
5 degrees	1000R	300R	700R
6 degrees	1300R	400R	800R
7 degrees	1500R	500R	1000R
8 degrees	1700R	600R	1100R
9 degrees	1900R	600R	1300R
10 degrees	2100R	700R	1400R
11 degrees	2300R	800R	1600R
12 degrees	2600R	800R	1700R
13 degrees	2800R	900R	1800R
14 degrees	3000R	1000R	2000R
15 degrees	3200R	1100R	2100R
16 degrees	3400R	1100R	2300R
17 degrees	3700R	1200R	2400R
18 degrees	3900R	1300R	2600R
19 degrees	4100R	1400R	2800R
20 degrees	4400R	1500R	2900R

NOTE: Section lead use 0 offset

MULTIPLE POINTS OF IMPACT (MPI) OFFSET CHART

LEFT DRIFT	ELEMENT LEADS	RIGHT WINGMAN	LEFT WINGMAN
0 degree	0	600R	600L
1 degree	200R	700R	500L
2 degrees	400R	700R	300L
3 degrees	600R	800R	200R
4 degrees	800R	900R	0
5 degrees	1000R	900R	100L
6 degrees	1300R	1000R	200R
7 degrees	1500R	1100R	400R
8 degrees	1700R	1200R	500R
9 degrees	1900R	1200R	700R
10 degrees	2100R	1300R	800R
11 degrees	2300R	1400R	1000R
12 degrees	2600R	1400R	1100R
13 degrees	2800R	1500R	1200R
14 degrees	3000R	1500R	1400R
15 degrees	3200R	1700R	1500R
16 degrees	3400R	1700R	1700R
17 degrees	3700R	1800R	1800R
18 degrees	3900R	1900R	2000R
19 degrees	4100R	2000R	2200R
20 degrees	4400R	2100R	2300R

NOTE: Section lead use 0 offset

MULTIPLE POINTS OF IMPACT (MPI) OFFSET CHART

RIGHT DRIFT	ELEMENT LEADS	RIGHT WINGMAN	LEFT WINGMAN
0 degree	0	600R	600L
1 degree	200L	700R	700L
2 degrees	400L	800R	900L
3 degrees	600L	400R	1000L
4 degrees	800L	300R	1200L
5 degrees	1000L	300R	1300L
6 degrees	1300L	200R	1400L
7 degrees	1500L	100R	1600L
8 degrees	1700L	100R	1700L
9 degrees	1900L	0	1900L
10 degrees	2100L	100L	2000L
11 degrees	2300L	200L	2200L
12 degrees	2600L	200L	2300L
13 degrees	2800L	300L	2400L
14 degrees	3000L	400L	2600L
15 degrees	3200L	500L	2700L
16 degrees	3400L	500L	2900L
17 degrees	3700L	600L	3000L
18 degrees	3900L	700L	3200L
19 degrees	4100L	800L	3400L
20 degrees	4400L	900L	3500L

NOTE: Section leads use 0 offset

CDS/RAMP CONTAINER BUNDLE
FLAP SETTING CHART FOR 130 KNOTS

		1-4 BUNDLES	5-10 BUNDLES	11-16 BUNDLES
		Flap Setting	**Flap Setting**	**Flap Setting**
A	90	*	2	7
C	95	*	5	10
F	100	*	8	13
T	105	1	11	16
	110	4	14	19
G	115	7	17	22
R	120	11	20	25
O	125	14	23	28
S	130	17	25	31
S	135	20	28	34
	140	23	31	37
	145	27	34	40
W	150	30	37	43
T	155	33	40	46
	160	36	43	49

*****When dropping CDS (1-4 bundles), it is recommended that the aircraft gross weight be no less than 104,000 pounds at release point. If drop must be made, use 0 (zero) flaps and expect <u>longer</u> than normal exit time.

CDS/RAMP CONTAINER BUNDLE
FLAP SETTING CHART FOR 140 KNOTS

		1-4 BUNDLES	5-10 BUNDLES	11-16 BUNDLES
		Flap Setting	**Flap Setting**	**Flap Setting**
A	90	*	*	*
C	95	*	*	0
F	100	*	*	4
T	105	*	*	8
	110	*	1	12
G	115	*	5	16
R	120	0	9	19
O	125	4	13	23
S	130	7	16	27
S	135	10	20	31
	140	14	24	35
	145	17	28	38
W	150	20	31	42
T	155	24	35	46
	160	27	39	50

*****Recommend dropping at 130 knots IAS for these gross weights.

POWER OFF STALL/Vmeto SPEEDS

ACFT GRWT	0% FLAPS		50% FLAPS		$1.2V_S$
	0° BANK	45° BANK	0° BANK	45° BANK	
90	99	113	83	98	79
95	101	116	86	101	80
100	104	119	88	104	82
105	107	122	90	106	84
110	109	125	92	109	86
115	112	128	94	111	87
120	114	130	96	114	89
125	117	133	98	116	91
130	119	136	101	118	92
135	121	139	103	121	94
140	124	141	105	123	95
145	126	144	107	125	97
150	128	146	109	127	99
155	130	149	110	129	100
160	133	151	112	131	102
165	135	154	114	133	104
170	137	156	116	135	106

Extracted from T.O. 1C-130H-1 AND T.O. 1C-130H-1-1
AIRCRAFT SERIES CODE H
AIRPLANES PRIOR TO AF85-0035

POWER OFF STALL/Vmeto SPEEDS

ACFT GRWT	0% FLAPS		50% FLAPS		$1.2V_S$
	0° BANK	45° BANK	0° BANK	45° BANK	
90	94	111	82	98	83
95	96	115	85	101	85
100	99	118	87	104	87
105	101	121	89	106	89
110	104	124	91	109	91
115	106	127	93	111	93
120	108	130	95	114	95
125	111	132	98	116	97
130	113	135	100	119	99
135	115	138	102	121	101
140	117	140	104	123	102
145	119	143	105	126	104
150	121	145	107	128	105
155	123	148	109	130	107
160	125	150	111	132	109
165	127	153	112	134	110
170	129	155	114	136	112

Extracted from T.O. 1C-130H-1 AND T.O. 1C-130H-1-1
AIRCRAFT SERIES CODE HR
AIRPLANES AF85-0035 AND UP

POWER OFF STALL/Vmeto SPEEDS

ACFT GRWT	0% FLAPS		50% FLAPS		$1.2V_S$
	0° BANK	45° BANK	0° BANK	45° BANK	
90	94	112	82	98	83
95	96	115	85	101	85
100	99	118	87	104	87
105	101	121	89	106	89
110	104	124	91	109	91
115	106	127	93	111	93
120	108	129	95	114	95
125	111	132	98	116	97
130	113	135	100	119	99
135	115	138	101	121	101
140	117	140	103	123	102
145	119	143	105	126	104
150	121	145	107	128	105
155	123	148	109	130	107
160	125	150	111	132	109
165	127	153	113	134	110
170	129	155	114	136	112

Extracted from T.O. 1C-130(K)H-1 AND T.O. 1C-130H-1-1 AIRPLANES AF92-0547 THROUGH AF92-1538 AND AF92-3281 AND UP.

POWER OFF STALL/Vmeto SPEEDS

ACFT GRWT	0% FLAPS		50% FLAPS		$1.2V_S$
	0° BANK	45° BANK	0° BANK	45° BANK	
90	98	113	83	98	78
95	101	116	85	100	80
100	104	119	88	103	82
105	106	122	90	106	83
110	109	125	92	108	85
115	111	127	94	110	87
120	113	130	96	113	88
125	116	133	99	115	90
130	118	135	100	118	92
135	120	138	102	120	94
140	123	141	104	122	96
145	125	143	106	124	97
150	127	146	108	127	99
155	129	148	110	129	101
160	131	151	112	131	102
165	133	153	114	133	104
170	135	155	116	136	105

Extracted from T.O. 1C-130B-1 AND T.O. 1C-130B-1-1

In-Track Distances In Feet.

Ground Speed	Drift	3000	3250	3500	3750	4000	4250	4500	4750	5000
	0	**17.7**	**19.4**	**21.0**	**22.7**	**24.3**	**26.0**	**27.6**	**29.3**	**30.9**
	10	18.1	19.7	21.4	23.1	24.7	26.4	28.1	29.8	31.4
90	15	18.4	20.1	21.9	23.6	25.3	27.0	28.7	30.4	32.1
	20	19.0	20.8	22.5	24.3	26.0	27.8	29.5	31.3	33.0
	0	**16.7**	**18.3**	**19.8**	**21.4**	**22.9**	**24.5**	**26.1**	**27.6**	**29.2**
	10	17.0	18.6	20.2	21.7	23.3	24.9	26.5	28.1	29.7
95	15	17.4	19.0	20.6	22.2	23.8	25.4	27.1	28.7	30.3
	20	17.9	19.6	21.2	22.9	24.5	26.2	27.9	29.5	31.2
	0	**15.8**	**17.3**	**18.7**	**20.2**	**21.7**	**23.2**	**24.7**	**26.1**	**27.6**
	10	16.0	17.6	19.1	20.6	22.1	23.6	25.1	26.6	28.1
100	15	16.4	17.9	19.5	21.0	22.5	24.1	25.6	27.1	28.7
	20	16.9	18.5	20.1	21.6	23.2	24.8	26.4	27.9	29.5
	0	**14.9**	**16.3**	**17.7**	**19.2**	**20.6**	**22.0**	**23.4**	**24.8**	**26.2**
	10	15.2	16.6	18.1	19.5	20.9	22.4	23.8	25.2	26.6
105	15	15.5	17.0	18.4	19.9	21.4	22.8	24.3	25.7	27.2
	20	16.0	17.5	19.0	20.5	22.0	23.5	25.0	26.5	28.0
	0	**14.2**	**15.5**	**16.9**	**18.2**	**19.5**	**20.9**	**22.2**	**23.6**	**24.9**
	10	14.4	15.8	17.1	18.5	19.9	21.2	22.6	24.0	25.3
110	15	14.7	16.1	17.5	18.9	20.3	21.7	23.1	24.5	25.9
	20	15.2	16.6	18.1	19.5	20.9	22.4	23.8	25.2	26.7

In-Track Distances In Feet.

Ground Speed	Drift	7000	7250	7500	7750	8000	8250	8500	8750	9000
	0	**44.1**	**45.7**	**47.4**	**49.0**	**50.7**	**52.3**	**54.0**	**55.6**	**57.2**
	10	44.6	46.5	48.1	49.8	51.5	53.1	54.8	56.5	58.2
90	15	45.7	47.4	49.1	50.8	52.5	54.2	55.7	57.6	59.3
	20	47.0	48.8	50.5	52.3	54.0	55.8	57.5	59.3	61.1
	0	**41.7**	**43.2**	**44.8**	**46.3**	**47.9**	**49.5**	**51.0**	**52.6**	**54.1**
	10	42.3	43.9	45.5	47.1	48.7	50.2	51.8	53.4	55.0
95	15	43.2	44.8	46.4	48.0	49.7	51.3	52.9	54.5	56.1
	20	44.5	46.1	47.8	49.4	51.1	52.8	54.4	56.1	57.7
	0	**39.5**	**41.0**	**42.4**	**43.9**	**45.4**	**46.9**	**48.4**	**49.8**	**51.3**
	10	40.1	41.6	43.1	44.6	46.1	47.6	49.1	50.6	52.1
100	15	40.9	42.5	44.0	45.5	47.1	48.6	50.1	51.7	53.2
	20	42.1	43.7	45.3	46.9	48.4	50.0	51.6	53.2	54.7
	0	**37.5**	**38.9**	**40.3**	**41.7**	**43.1**	**44.6**	**46.0**	**47.4**	**48.8**
	10	38.1	39.5	41.0	42.4	43.8	45.3	46.7	48.1	49.6
105	15	39.9	40.4	41.8	43.3	44.7	46.2	47.7	49.1	50.6
	20	40.0	41.5	43.0	44.5	46.0	47.5	49.0	50.5	52.0
	0	**35.7**	**37.1**	**38.4**	**39.7**	**41.1**	**42.4**	**43.8**	**45.1**	**46.6**
	10	36.3	37.7	39.0	40.4	41.8	43.1	44.5	45.9	47.2
110	15	37.0	38.4	39.8	41.2	42.6	44.0	45.4	46.8	48.2
	20	38.1	39.6	41.0	42.4	43.9	45.3	46.7	48.2	49.6

In-Track Distances In Feet.

Ground Speed	Drift	3000	3250	3500	3750	4000	4250	4500	4750	5000
	0	**14.2**	**15.5**	**16.9**	**18.2**	**19.5**	**20.9**	**22.2**	**23.6**	**24.9**
	10	14.4	15.8	17.1	18.5	19.9	21.2	22.6	24.0	25.3
110	15	14.7	16.1	17.5	18.9	20.3	21.7	23.1	24.5	25.9
	20	15.2	16.6	18.1	19.5	20.9	22.4	23.8	25.2	26.7
	0	**13.5**	**14.7**	**16.0**	**17.3**	**18.6**	**19.9**	**21.2**	**22.5**	**23.8**
	10	13.7	15.0	16.3	17.6	18.9	20.2	21.5	22.8	24.2
115	15	14.0	15.3	16.7	18.0	19.3	20.7	22.0	23.3	24.7
	20	14.4	15.8	17.2	18.6	19.9	21.3	22.7	24.0	25.4
	0	**12.9**	**14.0**	**15.3**	**16.5**	**17.7**	**19.0**	**20.2**	**21.5**	**22.7**
	10	13.0	14.3	15.5	16.8	18.1	19.3	20.6	21.8	23.1
120	15	13.3	14.6	15.9	17.2	18.4	19.7	21.0	22.3	23.6
	20	13.8	15.1	16.4	17.7	19.0	20.3	21.6	23.0	24.3
	0	**12.2**	**13.4**	**14.6**	**15.8**	**17.0**	**18.1**	**19.3**	**20.5**	**21.7**
	10	12.4	13.6	14.8	16.0	17.3	18.5	19.7	20.9	22.1
125	15	12.7	13.9	15.2	16.4	17.6	18.9	20.1	21.3	22.5
	20	13.1	14.4	15.7	16.9	18.2	19.4	20.7	22.0	23.2
	0	**11.7**	**12.8**	**14.0**	**15.1**	**16.2**	**17.4**	**18.5**	**19.6**	**20.8**
	10	11.9	13.0	14.2	15.4	16.5	17.7	18.8	20.0	21.1
130	15	12.2	13.3	14.5	15.7	16.9	18.1	19.2	20.4	21.6
	20	12.6	13.8	15.0	16.2	17.4	18.6	19.8	21.0	22.3

In-Track Distances In Feet.

Ground Speed	Drift	7000	7250	7500	7750	8000	8250	8500	8750	9000
	0	**35.7**	**37.1**	**38.4**	**39.7**	**41.1**	**42.2**	**43.8**	**45.1**	**46.6**
	10	36.3	37.7	39.0	40.4	41.8	43.1	44.5	45.9	47.2
110	15	37.0	38.4	39.8	41.2	42.6	44.0	45.4	46.8	48.2
	20	38.1	39.6	41.0	42.4	43.9	45.3	46.7	48.2	49.6
	0	**34.1**	**35.4**	**36.6**	**37.9**	**39.2**	**40.5**	**41.8**	**43.1**	**44.4**
	10	34.6	35.9	37.2	38.5	39.9	41.2	42.5	43.8	45.1
115	15	35.3	36.7	38.0	39.3	40.7	42.0	43.3	44.7	46.0
	20	36.4	37.7	39.1	40.5	41.9	43.2	44.6	46.0	47.3
	0	**32.6**	**33.8**	**35.0**	**36.3**	**37.5**	**38.7**	**40.0**	**41.2**	**42.4**
	10	33.1	34.3	35.6	36.9	38.1	39.4	40.6	41.9	43.1
120	15	33.8	35.1	36.3	37.6	38.9	40.2	41.4	42.7	44.0
	20	34.8	36.1	37.4	38.7	40.0	41.3	42.7	44.0	45.3
	0	**31.2**	**32.4**	**33.5**	**34.7**	**35.9**	**37.1**	**38.3**	**39.5**	**40.7**
	10	31.7	32.9	34.1	35.3	36.5	37.7	38.9	40.1	41.3
125	15	32.3	33.6	34.8	36.0	37.3	38.5	39.7	40.9	42.2
	20	33.3	34.6	35.8	37.1	38.4	39.6	40.9	42.1	43.4
	0	**29.9**	**31.0**	**32.2**	**33.3**	**34.5**	**35.6**	**36.7**	**37.9**	**39.0**
	10	30.4	31.6	32.7	33.9	35.0	36.2	37.3	38.5	39.7
130	15	31.0	32.2	33.4	34.6	35.7	36.9	38.1	39.3	40.5
	20	32.0	33.2	34.4	35.6	36.8	38.0	39.2	40.4	41.7

In-Track Distances In Feet.

Ground Speed	Drift	3000	3250	3500	3750	4000	4250	4500	4750	5000
	0	**11.7**	**12.8**	**14.0**	**15.1**	**16.2**	**17.4**	**18.5**	**19.6**	**20.8**
	10	11.9	13.0	14.2	15.4	16.5	17.7	18.8	20.0	21.1
130	15	12.2	13.3	14.5	15.7	16.9	18.1	19.2	20.4	21.6
	20	12.6	13.8	15.0	16.2	17.4	18.6	19.8	21.0	22.3
	0	**11.2**	**12.3**	**13.4**	**14.5**	**15.6**	**16.7**	**17.7**	**18.8**	**19.9**
	10	11.4	12.5	13.6	14.7	15.8	16.9	18.1	19.2	20.3
135	15	11.6	12.8	13.9	15.0	16.2	17.3	18.4	19.6	20.7
	20	12.0	13.2	14.3	15.5	16.7	17.8	19.0	20.2	21.4
	0	**10.7**	**11.8**	**12.8**	**13.9**	**14.9**	**16.0**	**17.0**	**18.1**	**19.2**
	10	10.9	12.0	13.0	14.1	15.2	16.3	17.3	18.4	19.5
140	15	11.1	12.2	13.3	14.4	15.5	16.6	17.7	18.8	19.9
	20	11.5	12.6	13.8	14.9	16.0	17.1	18.3	19.4	20.5
	0	**10.3**	**11.3**	**12.3**	**13.3**	**14.3**	**15.4**	**16.4**	**17.4**	**18.4**
	10	10.4	11.5	12.5	13.6	14.6	15.6	16.7	17.7	18.7
145	15	10.7	11.7	12.8	13.9	14.9	16.0	17.0	18.1	19.2
	20	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.7	19.7
	0	**9.8**	**10.8**	**11.8**	**12.8**	**13.8**	**14.8**	**15.8**	**16.8**	**17.7**
	10	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.1	18.1
150	15	10.3	11.3	12.3	13.3	14.4	15.4	16.4	17.4	18.4
	20	10.6	11.7	12.7	13.8	14.8	15.9	16.9	18.0	19.0

In-Track Distances In Feet.

Ground Speed	Drift	7000	7250	7500	7750	8000	8250	8500	8750	9000
	0	**29.4**	**31.0**	**32.2**	**33.3**	**34.5**	**35.6**	**36.7**	**37.9**	**39.0**
	10	30.4	31.6	32.7	33.9	35.0	36.2	37.3	38.5	39.7
130	15	31.0	32.2	33.4	34.6	35.7	36.9	38.1	39.3	40.5
	20	32.0	33.2	34.4	35.6	36.8	38.0	39.2	40.4	41.7
	0	**28.7**	**29.8**	**30.9**	**32.0**	**33.1**	**34.2**	**35.3**	**36.4**	**37.5**
	10	29.2	30.3	31.4	32.5	33.7	34.8	35.9	37.0	38.1
135	15	29.8	30.9	32.1	33.2	34.3	35.5	36.6	37.8	38.9
	20	30.7	31.9	33.0	34.2	35.4	36.5	37.7	38.9	40.0
	0	**27.6**	**28.7**	**29.7**	**30.8**	**31.9**	**32.9**	**34.0**	**35.0**	**36.1**
	10	28.1	29.2	30.2	31.3	32.4	33.5	34.5	35.6	36.7
140	15	28.7	29.4	30.9	32.0	33.1	34.1	35.2	36.3	37.4
	20	29.5	30.7	31.8	32.9	34.0	35.2	36.3	37.4	38.5
	0	**26.6**	**27.6**	**28.6**	**29.7**	**30.7**	**31.7**	**32.7**	**33.8**	**34.8**
	10	27.0	28.1	29.1	30.2	31.2	32.2	33.3	34.3	35.3
145	15	27.6	28.7	29.7	30.8	31.8	32.9	34.0	35.0	36.1
	20	28.4	29.5	30.6	31.7	32.8	33.9	35.0	36.0	37.1
	0	**25.6**	**26.6**	**27.6**	**28.6**	**29.6**	**30.6**	**31.6**	**32.6**	**33.5**
	10	26.1	27.1	28.1	29.1	30.1	31.1	32.1	33.1	34.1
150	15	26.8	27.6	28.7	29.7	30.7	31.7	32.8	33.8	34.8
	20	27.4	28.5	29.5	30.6	31.6	32.7	33.7	34.8	35.8

In-Track Distances In Feet.

Ground Speed	Drift	3000	3250	3500	3750	4000	4250	4500	4750	5000
	0	**9.8**	**10.8**	**11.8**	**12.8**	**13.8**	**14.8**	**15.8**	**16.8**	**17.7**
	10	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.1	18.1
150	15	10.3	11.3	12.3	13.3	14.4	15.4	16.4	17.4	18.4
	20	10.6	11.7	12.7	13.8	14.8	15.9	16.9	18.0	19.0
	0	**9.5**	**10.4**	**11.4**	**12.3**	**13.3**	**14.2**	**15.2**	**16.2**	**17.1**
	10	9.6	10.6	11.6	12.6	13.5	14.5	15.5	16.4	17.4
155	15	9.9	10.9	11.9	12.8	13.8	14.8	15.8	16.8	17.8
	20	10.2	11.2	12.2	13.3	14.3	15.3	16.3	17.3	18.3
	0	**9.1**	**10.0**	**11.0**	**11.9**	**12.8**	**13.7**	**14.7**	**15.6**	**16.5**
	10	9.3	10.2	11.2	12.1	13.0	14.0	14.9	15.9	16.8
160	15	9.5	10.5	11.4	12.4	13.3	14.3	15.3	16.2	17.2
	20	9.8	10.8	11.8	12.8	13.8	14.7	15.7	16.7	17.7
	0	**8.8**	**9.7**	**10.6**	**11.5**	**12.4**	**13.3**	**14.2**	**15.1**	**16.0**
	10	8.9	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2
165	15	9.2	10.1	11.0	11.9	12.9	13.8	14.7	15.7	16.6
	20	9.5	10.4	11.4	12.3	13.3	14.2	15.2	16.2	17.1
	0	**8.5**	**9.3**	**10.2**	**11.1**	**11.9**	**12.8**	**13.7**	**14.6**	**15.4**
	10	8.6	9.5	10.4	11.3	12.2	13.0	13.5	14.8	15.7
170	15	8.8	9.7	10.6	11.5	12.4	13.3	14.2	15.1	16.0
	20	9.1	10.1	11.0	11.9	12.8	13.8	14.7	15.6	16.5

In-Track Distances In Feet.

Ground Speed	Drift	7000	7250	7500	7750	8000	8250	8500	8750	9000
	0	**25.6**	**26.6**	**27.6**	**28.6**	**29.6**	**30.6**	**31.6**	**32.6**	**33.5**
	10	26.1	27.1	28.1	29.1	30.1	31.1	32.1	33.1	34.1
150	15	26.8	27.6	28.7	29.7	30.7	31.7	32.8	33.8	34.8
	20	27.4	28.5	29.5	30.6	31.6	32.7	33.7	34.8	5.8
	0	**24.8**	**25.7**	**26.7**	**27.6**	**28.6**	**29.5**	**30.5**	**31.4**	**32.4**
	10	25.2	26.1	27.1	28.1	29.0	30.0	31.0	32.0	32.9
155	15	25.7	26.7	27.7	28.7	29.6	30.6	31.6	32.6	33.6
	20	26.5	27.5	28.5	29.5	30.5	31.6	32.6	33.6	34.6
	0	**23.9**	**24.8**	**25.8**	**26.5**	**27.6**	**28.6**	**29.5**	**30.4**	**31.3**
	10	24.3	25.3	26.2	27.1	28.1	29.0	30.0	30.9	31.8
160	15	24.8	25.8	26.8	27.7	28.7	29.6	30.6	31.5	32.5
	20	25.6	26.6	27.6	28.5	29.5	30.5	31.5	32.5	33.5
	0	**23.1**	**24.0**	**24.9**	**25.8**	**26.7**	**27.6**	**28.5**	**29.4**	**30.3**
	10	23.5	24.4	25.3	26.3	27.2	28.1	29.0	29.9	30.8
165	15	24.0	25.0	25.9	26.8	27.7	28.7	29.6	30.5	31.5
	20	24.7	25.7	26.7	27.6	28.6	29.5	30.5	31.4	32.4
	0	**22.4**	**23.3**	**24.1**	**25.0**	**25.9**	**26.8**	**27.6**	**28.5**	**29.4**
	10	22.8	23.7	24.5	25.4	26.3	27.2	28.1	29.0	29.9
170	15	23.3	24.2	25.1	26.0	26.9	27.8	28.7	29.6	30.5
	20	24.0	24.9	25.8	26.7	27.7	28.6	29.5	30.5	31.4

In-Track Distances In Feet.

Ground Speed	Drift	3000	3250	3500	3750	4000	4250	4500	4750	5000
	0	**8.5**	**9.3**	**10.2**	**11.1**	**11.9**	**12.8**	**13.7**	**14.6**	**15.4**
	10	8.6	9.5	10.4	11.3	12.2	13.0	13.9	14.8	15.7
170	15	8.8	9.7	10.6	11.5	12.4	13.3	14.2	15.1	16.0
	20	9.1	10.1	11.0	11.9	12.8	13.8	14.7	15.6	16.5
	0	**8.2**	**9.0**	**9.8**	**10.7**	**11.5**	**12.4**	**13.2**	**14.1**	**14.9**
	10	8.3	9.2	10.0	10.9	11.8	12.6	13.5	14.3	15.2
175	15	8.5	9.4	10.3	11.1	12.0	12.9	13.8	14.6	15.5
	20	8.8	9.7	10.6	11.5	12.4	13.3	14.2	15.1	16.0
	0	**7.9**	**8.7**	**9.5**	**10.3**	**11.2**	**12.0**	**12.8**	**13.6**	**14.5**
	10	8.0	8.9	9.7	10.5	11.4	12.2	13.0	13.9	14.7
180	15	8.2	9.1	9.9	10.8	11.6	12.5	13.3	14.2	15.0
	20	8.5	9.4	10.3	11.1	12.0	12.9	13.8	14.6	15.5
	0	**7.6**	**8.4**	**9.2**	**10.0**	**10.8**	**11.6**	**12.4**	**13.2**	**14.0**
	10	7.8	8.6	9.4	10.2	11.0	11.8	12.6	13.4	14.3
185	15	7.9	8.8	9.6	10.4	11.3	12.1	12.9	13.7	14.6
	20	8.2	9.1	9.9	10.8	11.6	12.5	13.3	14.2	15.0
	0	**7.4**	**8.1**	**8.9**	**9.7**	**10.5**	**11.3**	**12.0**	**12.8**	**13.6**
	10	7.5	8.3	9.1	9.9	10.7	11.5	12.2	13.0	13.8
190	15	7.7	8.5	9.3	10.1	10.9	11.7	12.5	13.3	14.1
	20	8.0	8.8	9.6	10.4	11.3	12.1	12.9	13.8	14.6

In-Track Distances In Feet.

Ground Speed	Drift	7000	7250	7500	7750	8000	8250	8500	8750	9000
	0	**22.4**	**23.3**	**24.1**	**25.0**	**25.9**	**26.8**	**27.6**	**28.5**	**29.4**
	10	22.8	23.7	24.5	25.4	26.3	27.2	28.1	29.0	29.9
170	15	23.3	24.2	25.1	26.0	26.9	27.8	28.7	29.6	30.5
	20	24.0	24.9	25.8	26.7	27.7	28.6	29.5	30.5	31.4
	0	**21.7**	**22.5**	**23.4**	**24.2**	**25.1**	**25.9**	**26.8**	**27.6**	**28.5**
	10	22.1	22.9	23.8	24.6	25.5	26.4	27.2	28.1	28.9
175	15	22.5	23.4	24.3	25.2	26.0	26.9	27.8	28.7	29.5
	20	23.2	24.1	25.0	25.9	26.8	27.7	28.6	29.5	30.4
	0	**21.0**	**21.9**	**22.7**	**23.5**	**24.3**	**25.2**	**26.0**	**26.8**	**27.6**
	10	21.4	22.4	23.1	23.9	24.7	25.6	26.4	27.2	28.0
180	15	21.9	22.7	23.6	24.4	25.3	26.1	27.0	27.8	28.7
	20	22.5	23.4	24.3	25.1	26.0	26.9	27.8	28.6	29.5
	0	**20.4**	**21.2**	**22.0**	**22.8**	**23.6**	**24.4**	**25.2**	**26.0**	**26.8**
	10	20.8	21.6	22.4	23.3	24.0	24.8	25.6	26.5	27.3
185	15	21.2	22.0	22.9	23.7	24.5	25.4	26.2	27.0	27.8
	20	21.9	22.7	23.6	24.4	25.3	26.1	27.0	27.8	28.7
	0	**19.8**	**20.6**	**21.4**	**22.2**	**22.9**	**23.7**	**24.5**	**25.3**	**26.1**
	10	20.2	21.0	21.7	22.5	23.3	24.1	24.9	25.7	26.5
190	15	20.6	21.4	22.2	23.0	23.8	24.6	25.4	26.2	27.1
	20	21.2	22.1	22.9	23.7	24.5	25.4	26.2	27.0	27.9

En Route Formation SKE Timing Table (Seconds).

Feet	3500	4000	4500	6000	7500	8000	8500	11500	12000	12500
TAS										
170	12.2	14.0	15.7	20.9	26.2	27.9	29.7	40.1	41.9	43.6
180	11.5	13.2	14.8	19.8	24.7	26.4	28.0	37.9	39.5	41.2
190	10.9	12.5	14.0	18.7	23.4	25.0	26.5	35.9	37.5	39.0
200	10.4	11.9	13.3	17.8	22.2	23.7	25.2	34.1	35.6	37.1
210	9.9	11.3	12.7	16.9	21.2	22.6	24.0	31.5	33.9	35.3
220	9.4	10.8	12.1	16.2	20.2	21.6	22.9	31.0	32.3	33.7
230	9.0	10.3	11.6	15.5	19.3	20.6	21.9	29.7	30.9	32.2
240	8.6	9.9	11.1	14.8	18.5	19.8	21.0	28.4	29.7	30.9
250	8.3	9.5	10.7	14.2	17.8	19.0	20.2	27.3	28.5	29.7
260	8.0	9.1	10.3	13.7	17.1	18.2	19.4	26.2	27.4	28.5

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