

Issue 3
March 2004

AP 101G-1001-14

Card 1
(AL2)

FLIGHT REFERENCE CARDS

VIKING T Mk 1

NORMAL DRILLS

CGT
SCATTER

Prepared by
Handling Squadron

NOTES TO USERS

1. These cards are complementary to the Grob ACRO Flight Manual produced by Burkhart Grob, West Germany
2. Where the response 'As required' is listed, the pilot should respond by stating the condition or setting of the system/equipment

Comments and suggestions regarding these Flight Reference Cards should be forwarded on MOD Form 765X (Aircrew) through the Officer Commanding, Air Cadets Central Gliding School, RAF Syerston, Newark, Notts NG23 5NG, to the Officer Commanding, Handling Squadron, Boscombe Down, Salisbury, Wilts SP4 0JE

LIST OF CARDS

<i>Card No</i>	<i>Issued by</i>
1	Issue 3 (AL2)
2	Issue 3 (AL1)
3	Issue 3 (AL2)
4	Issue 3

ANA INCORPORATED

<i>ANA No</i>						
<i>Card No</i>						

ANAs 1 and 2 are incorporated

LIMITATIONS

Note: The following limitations are taken from the MoD(AFD) Release to Service which should be consulted for the latest release standard.

Airframe Limitations

Maximum speed (V_{NE})	...	...	...	...	119 knots
Maximum acceleration (92 to 119 knots)	...	...	...	...	+4.8 g
Minimum acceleration (92 to 119 knots)	...	...	...	...	minus 2.6 g
Maximum speed in turbulence (V_B)	...	...	...	...	92 knots
Maximum manoeuvring speed (V_M)	...	...	...	...	92 knots
Maximum acceleration (up to 92 knots)	...	...	...	...	+5.7 g
Minimum acceleration (up to 92 knots)	...	...	...	...	minus 3.5 g
Maximum crosswind component	...	...	...	...	11 knots
Maximum speed for aerotow (V_T)	...	...	...	...	92 knots
Maximum speed for winch launch (V_W)	...	...	...	...	65 knots

Note 1: Maximum manoeuvring speed (V_M) is the speed at which full or rapid deflection of flight controls may be used.

Note 2: Notwithstanding the above limits a minimum of zero g and a maximum of +3.5g are not to be exceeded when flying this aircraft (TGOs(AC)).

Weak Link Breaking Strain

Winch launch and aerotow	754 kg max (1662 lb)
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Weight and Balance

Minimum load front seat	70 kg (154 lb)
Maximum load front seat	110 kg (242 lb)
Maximum load back seat	...	...	...	...	110 kg (242 lb)
Maximum load in baggage compartment	...	...	...	...	10 kg (22 lb)
Maximum take-off weight	...	...	...	...	625 kg (1378 lb)
Maximum take-off weight (spin whiskers fitted)	...	...	...	...	580 kg (1279 lb)

Limitations
2

Ballast weights must be fitted in the front cockpit if the front seat occupant weighs less than 70 kg (154 lb):

<i>Ballast weights fitted</i>	<i>Permitted weight range of front occupant (including parachute)</i>
2	55 to 94 kg (121 to 208 lb)
1	63 to 102 kg (138 to 225 lb)
0	70 to 110 kg (154 to 242 lb)

(continued)

Limitations - continued

Solo Flight

The pilot is to occupy the front seat

WARNING: The baggage compartment must be empty (except for correctly stowed aircraft batteries) for spinning and aerobatics.

Spinning and Aerobatics

Loops, spins, chandelles and tight turns are permitted within the range zero to +3.5 g

LEADING PARTICULARS

Span	17.5 m (57.4 feet)
Length	8.18 m (26.8 feet)
Height	1.55 m (5.1 feet)
Maximum AUW	625 kg (1378 lb)
Empty weight (nominal)... ..	397 kg (875 lb)

(Refer to MOD Form 700 for actual empty weight)

RECOMMENDED SPEEDS

Note: When operating at weights above 580 kg (1279 lb) the recommended speeds for take-off, aerobatics, approach and landing are to be increased by 5 knots

Winch launch 50 to 60 knots

Aerotow launch 60 to 75 knots

Minimum sink:

Dual 138 ft/min at 46 knots

Solo 126 ft/min at 43 knots

Best glide angle:

Dual 37 : 1 at 57 knots

Solo 36 : 1 at 51 knots

Speed in circuit 50 knots

Stalling speed:

Dual: Brakes closed 41 knots

Brakes open... .. 46 knots

Solo: Brakes closed 36 knots

Brakes open... .. 41 knots

Approach Speeds

Wind less than 10 knots Minimum 55 knots

Wind greater than 10 knots or in turbulence or with wet wings Minimum 60 knots

EXTERNAL CHECKS

Starting forward of the left wing root and working counter clockwise around the aircraft, check:

Canopies	...	...	...	Clean and undamaged DV panels secure Jettison handles both forward
Cockpits	...	...	...	No foreign objects Batteries/Ballast weights secure
Mainplane (left).....	...	...	...	Condition, dry off if necessary Wing/fuselage seal
Airbrake	...	...	...	Condition
Aileron	...	...	...	Condition
Fuselage (left)	...	...	...	Condition
Tail unit	...	...	...	Fin and tailplane condition, dry off if necessary Venturi tube Pitot tube and static vents Red marks on fin/tailplane aligned Rudder condition (control is on right-hand side) Elevator condition, connector engaged Tailwheel and tyre for cuts, creep and condition
Fuselage (right)	...	....	...	Condition
Mainplane (right)	...	...	...	Condition, dry off if necessary Wing/fuselage seal
Aileron	...	...	...	Condition
Airbrake	...	...	...	Condition
Main wheel...	...	...	...	Check tyre for cuts, creep and condition
Nosewheel	...	...	...	Check tyre for cuts, creep and condition
Front fuselage (both sides)				Condition Release hooks (front and rear)

TAKE-OFF

WARNING 1: Take-off with a tailwind component is not permitted

WARNING 2: Take-off is to be from tarmac or close mown grass. New mown grass surfaces are not to be used

WARNING 3: With wet or slightly iced wings or insect accumulations, there is a considerable deterioration in flight performance

Rudder pedals	...	...	Adjusted and locked
Controls	...	...	Full and free movement
Ballast	...	...	Check cockpit load (including parachute and removable ballast).
Tail Dolly	...	...	Confirm removed
Harness	...	...	Secure and adjusted
Instruments:			
<i>Mandatory</i>			
ASI	...	...	Reading normally
Altimeter	...	...	Set
<i>As required</i>			
Compass	...	...	Condition
Electric main switch			ON
Battery selector	...	...	As required
Turn and slip	...	...	As required
Climb/dolphin switch			CLIMB
Electric variometer			ON
Radio	...	...	ON. Check operation
Circuit breakers	...	...	Made
Trim	...	...	Neutral
Airbrakes	...	...	Check operation, closed and locked
Canopies	...	...	Front and Rear canopies closed, lever fully forward and canopy physically checked secure. (Aircraft commander must visually check both levers).
Take-off brief	...	...	Complete

Note: In the event of a delayed launch the Canopy Check and Take-off Brief are to be repeated

PRE-STALLING

Height	...	...	...	Sufficient to recover by 500 feet MSD
Airframe	...	...	...	Airbrake as required
Security				
Canopy	...	...	...	Closed and locked
Harness	...	...	...	Tight
Loose articles	...	...	...	None
Engine	...	...	...	Not applicable
Location	...	...	...	Clear of controlled airspace, built- up areas and cloud
Lookout	...	...	...	Clear of other aircraft

643VGS



VIKING T Mk 1

EMERGENCY DRILLS

ABANDONING BY PARACHUTE

WARNING

**The minimum safe height for abandonment
is 800 feet AGL in level flight**

Pull both red handles fully back simultaneously

Push canopy up and away

Release seat harness

Stand and bale out over the cockpit side

Once clear of the aircraft, pull the ripcord handle to its full extent

Note: If circumstances permit, the rear seat pilot should bale out first

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