

the top of the bomb to

the side of the bomb to

the top of the bomb

the side of the bomb

the top of the bomb

London

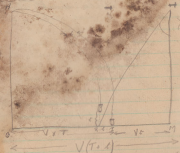
the top of the bomb first falls into
the side of the bomb released
the top of the bomb released in still
the side of the bomb released in still
the top of the bomb released in wind
Leaf Bomb the perfect bomb
the side of the bomb released in air
the top of the bomb released in still

11

... it is clear that
 forward motion
 1) Downward pull
 of gravity

... time during the fall to earth.
 Time of fall of an ideal bomb
 Take the points of constant
 acceleration $s = ut + \frac{1}{2}gt^2$
 into s distance in initial velocity
 $u = 0$ time of a gravity. In this case
 s can be substituted by h , initial
 velocity down is zero. $h = \frac{1}{2}gt^2$
 $h = \frac{1}{2}gt^2$ $h = 16t^2$ $t^2 = \frac{1}{16}h$ $t = \frac{1}{4}\sqrt{h}$
 The distance the ideal

... of an ideal bomb
 ... released simultaneously with a



... ideal bomb is now considered
 to be released simultaneously with a

ideal bomb, the bomb will not
 be affected by air resistance
 and will speed on its forward
 and fall. The
 downward velocity is true. This
 at an altitude that with the
 ideal bomb strikes (directly beneath
 the aircraft) the real bomb is behind
 on heading and is behind in the air.
 So when the real bomb strikes the
 eye has moved on the path of the
 V.K. The distance a real bomb has
 behind a point vertically beneath the
 aircraft is true distance. The angle
 between a line from eye to bomb
 and a vertical from eye is true
 angle.

See definitions.

Approximation of small angles

$$\theta = 360^\circ - Dc = 20R.$$

$$R = \frac{360 Dc}{20}$$

$$Dc = \frac{20 R}{360}$$

$$= \frac{2 \times 2 \times R}{360 \times 7}$$

$$= \frac{R}{57.3}$$

$$= \frac{H \theta}{60}$$

$$= \frac{H \theta}{60}$$

$$= \frac{H \theta}{60}$$

$$= \frac{H \theta}{60}$$



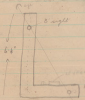
Approximation of a simple Bomb angle
 for real with an ideal bomb is
 still the same.

Bombing Angle The angle between
 a vertical from eye at line of
 sight and a line from point of
 release to point of impact (line of
 sight). This angle θ is the
 bombing angle.



If you consider
 a AC be placed
 the H will fall
 retained the correct
 angle. Angle ADB is
 AB will be the H bar
 and is the average
 of fall of the bank
 represented as a high

DB will be the
 in the slope of the
 (V). Both these
 to the scale

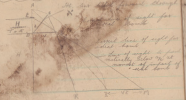


Scale 20 ft
 A.S. bar = 4
 $= \frac{100 \times 22}{15}$
 $= \frac{147}{30}$ f.p.s.
 $= 2.94$

H bar = $\frac{H}{T}$ $\frac{6400}{20}$ $\frac{320}{30}$

This height will give
 error equal to ground

construction of bank
 with flat bank



The height of a right for a real bank
 the fall of the bank must be taken
 into consideration and since the H
 bar is the average speed of the fall
 of the bank it follows that for a real
 bank the H bar will be $\frac{H}{T}$. The

24. The ball remains the same & the
 roof is brought to a suitable
 but line of sight now being changed
 (by height, by weight) to M. This is
 done by the vertical line of sight
 as the great boat legs behind the
 ideal. If we tilt height bar forward
 through θ (boat angle) the line of sight
 will be brought back to the correct
 position through θ to R.

Ideal boat viewed in a blind
 blind must be visualized as a
 column of air moving relative to
 the ground. The column has θ and
 and bomb rising in it. The page
 88. The ideal bomb falls on boat
boat bomb released in a blind



The boat bomb released in the
 same line as the ideal boat
 takes longer to fall. This allows
 θ to fly further in a point of
 before the boat reaches its point of
 impact at X. The boat bomb is
 carried further over by the wind
 velocity imparted to it from the θ
 on impact as far over as the θ
 itself and falls in the rear of the
 ideal boat. The real boat falls on
 a line back parallel to the heading

Location of beamlight for
 vessel at point C & distance



It has been seen that a vessel
 beam falling on a vessel stands
 back on a bearing β of the leading
 This distance back (beam distance) is
 allowed for on the beamlight by
 telling light has passed through
 δ . If a wind that BC is put on
 the beamlight A to wind direction
 and the windward be represented by
 the same scale as the air speed
 then a triangle of velocities is

formed on the beamlight with angles
 independent and grounded. The line of
 sight ABE will be constant and an
 ideal boat steered at the line
 of sight ABM is to a point
 vertically below M at the
 side of real boat and will give
 a ground error equal to beam
 distance. To correct line of sight
 true angle must be put on
 beamlight so that an effect moves
 beamlight forward along the leading
 to the ground line of sight A, B, E which
 is the correct line of sight.

120 6°P.

170 180°S.

160 9°S.

020 14°P.

190 10°S.

135/35K

Other tasks may include photographic recon under following 3 main headings

1. Strategical

Showing details of communications & supply systems, bridges, airports etc. also the enemies back areas. These photos are of the greatest importance & from them much information can be gained of the enemies future plans.

2. Tactical

Showing the enemy's line of battle, trench, dugouts, light machine gun battery positions & emplacements etc. Photos of this nature are of the greatest importance & require continuous replacement to keep them up to date.

3. Operational

These for the provision of a division

1. Air Photographs.

Reco.

What happens to an Air Recon Report



1. Availability of Recon Reports.
- 1. Information of the Squadron is available
 - 2. Information of the individual strength
 - 3. Height of the Alps
 - 4. Visibility & weather conditions
 - 5. Time of Day
 - 6. Type of aircraft
 - 7. Enemy positions of fighters & bombers

Purpose Value & Uses of Air Photo Reports

The majority of photos taken on active
 missions are of the objectives
 during reconnaissance & bombing raids
 The majority of identifying the objectives with
 certainty. This being the same territory
 which is often over strange country
 with no maps or other information
 available. In such cases a photo report will
 be of great value. A photo report will
 also show a number of the landmarks
 which are not shown on maps. It is
 also a very correct objective as well located
 in bombing raids. Photos are required of
 a target on every occasion to
 show whether or not the correct
 target has been attacked. In the event
 of damage to the target. From the
 photographs the intelligence operation
 staff may glean information of
 the status of the target.

DATE	TEMPERATURE	WIND	WIND DIRECTION	WIND FORCE	WIND VELOCITY	WIND VELOCITY	WIND VELOCITY
21 02 02	21 02	21 02	21 02	21 02	21 02	21 02	21 02
21 02 02	21 02	21 02	21 02	21 02	21 02	21 02	21 02
21 02 02	21 02	21 02	21 02	21 02	21 02	21 02	21 02

L. H. A. T. 21 02 02
 C. N. B. T. 21 02 02
 S. P. A. 21 02 02
 L. M. A. 21 02 02
 C. A. R. 21 02 02
 ASSUMED FROM [21 02 02 21 02 02]

T. H. A. T. 21 02 02 T. H. A. T. 21 02 02
 C. A. R. 21 02 02 T. A. X. 21 02 02
 INT. 21 02 02

21 02 02

17	20	25	25	25
18	21	26	26	26
19	22	27	27	27
20	23	28	28	28
21	24	29	29	29

Be... 200
 3000
 1000

Duma

Masina

Palemo

Catania

Reson

216	200	26
	1	26
	13	
	270	12
	25	25
	14	00

22	24		
23	25	215	22
		18	00

205	21	405	21
	03		
207	29	207	29
210	27	210	27
227	16	227	16
260		260	
27	10	27	10
25	20	25	20
27	20	27	20

28	27	28	
		48	
	21	229	
17	16	42	
		18	00

20th Nov	1	1	1	1	1
Champion	1	1	1	1	1
20f	10	9	10	10	10
40.0	10	10	10	10	10
Snake Head (H&S)	2	2	2	2	2
Snake 70 1/2 1/2	4	5	4	4	4
20f Snake	7	7	7	7	7
Snake generation 11	3	3	3	3	3
1 1/2 Snake					
1 1/2 Snake					
25 Secondary					
30 Light box					
40 Secondary					
Snake 70 over looking					

Tracer (two types) night tracer &
day tracer.

The day tracer ammo is white tipped
& night tracer has grey tip.

20 mm Cannon Shells. (Flare) (Flare)

- 1. Ball. Shell painted black.
- 2. Semi Armour piercing. White Tip.
- 3. Armour piercing. White Tip & White Band.
- 4. Incendiary. Painted red.

Forest Pull

- 1 Inspect Reciprocator Spindle
- 2 Open Forest doors & center fast first
- 3 Lock doors & test by leaning back
- 4 Plug in inter com
- 5 Fasten safety belt
- 6 Turn leaf reflector lights
- 7 In Load pins
- 8 Plug in analyzer
- 9 Unhook turret
- 10 Operate air rotation & position
- 11 2 dip switches
- 12 Inform Pilot contact control

If needed, refer to manual for details
 in the top of the manual

Small Arms Ammo.



INDENTATION.

PROPS.

Bill... usually mk VII
 that... 3 indentations
 Heller in mk I... Annular Red,
 G or base.

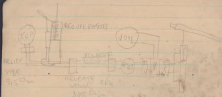
Secondary...
 ...
 ...
 ...
 ...

Reservoir

1. A means of filling the system without admitting air.
2. Acts as a reservoir for oil to compensate for losses over a long period.
3. Maintains a steady pressure of 15-20 PSI on the whole of the system when the engine is running.
4. Maintains a static pressure on the exhaust when the engine is not running.
5. Chamber for a safety valve to compensate for any increase of pressure in the system.

Master valve at 15 to 20 lbs per sq in.
 Explains operation Master Valve closed
 with engine P.P. is delivering (initially)
 oil at 2-3 gallons per minute flow
 through the pressure line as far as
 the master valve when it is returned to
 the P.P. via the exhaust pipe.
 System operates Master valve open
 but is defeated through the elevation
 & difference in valve as the valve is
 vented there is an outlet for the oil
 which builds up a column of pressure
 which is the same as the pressure in the
 system. This pressure is all to do
 with the return to P.P. via the exhaust line
 & the return to the engine.
 The pressure in the system is maintained
 by the Master valve which is a safety valve
 which will open if the pressure in the system
 rises above 20 PSI.





- E.O.P. Engine drive pump,
- RR4 EXHAUST Rotating gear
- RSS Rotating actuator
- VOM Vane Orifice

Valve Box
 Release Valve
 Variable Orifice
 Rotating Actuator
 Dipperstick
 Crankcase
 Recirculation Pump
 Pressure Gauge
 Dipperstick

Valve fitted filters the oil returning to E.O.P. Is fitted in the Exhaust line only.

External rotating gear assembly of rotating the tunnel for the outside. Rotating centre out.

Oil driven oil from a piece to a moving member in fuselage to thrust.

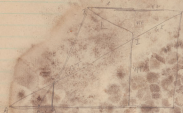
Valve Box consists of master valve, rotation valve, elevation & depression valve, & a pressure sensor oil under pressure in the engine components.

Oil is not allowed to flow into the engine components. The oil is allowed to flow into the engine components.

The oil is allowed to flow into the engine components. The oil is allowed to flow into the engine components.

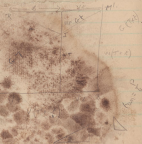
as per θ to heading. It is equal
 to $\frac{L \sin \theta}{H \tan \theta}$ or $\frac{L}{H}$
 60

That angle is the θ between a
 vertical dropped from an θ to
 the line from that bank to any
 any given moment during the
 time of fall



as per the heading. It is equal
 to $h \sin \theta$, $h \tan \theta$ or $\frac{h}{\cos \theta}$
 60

Trail angle is the angle between a
 vertical dropped from an α point on
 the line from that point to β ,
 any given moment during the
 life of fall



Definitions

Time Lag Is the difference between the time of fall of a real and ideal bomb released simultaneously from the same uniformly moving plane. It is denoted by t .

Time Lag is the horizontal distance between the real and ideal bombs relative to wind direction at any given t between the release of the real and ideal bombs. It is denoted by t .

The horizontal distance between the real and ideal bombs at any given t is denoted by t .