HOME OFFICE

CIVIL DEFENCE SCHOOL

EASINGWOLD

NO. 71/4 R.O.C. FULL-TIME OFFICERS' COURSE

17 - 22 JANUARY 1971

Abbreviations

LT - Lecture Theatre
DT - Demonstration Theatre
MSR - Main Drive Syndicate Room

Serial	Date/Time	Subject	Responsible	Location
	SUNDAY 17 JANUARY			
	1800	Course Assembles		
	1900	D I N N E R		
	2000 - 2005	Welcome	Mr E Bunting School Commandant	LT
	2005 - 2015	Administrative Details	Mr A J Murphy School Secretary	LT
1	2015 - 2035	Address	Air Commodore E B Sismore ROC Commandant	LT
	MONDAY 18 JANUARY			
2	0900 - 0930	Address	Mr J P Gelly	LT
3	0935 - 1005	The UKWMO	Mr R O Lane	LT
		C O F F E E		
4	1035 - 1105	Communications policy	Mr G A Potter	LT
5	1110 - 1140	Mobile monitoring	Mr R O Lane	LT
6	1145 - 1230	Exercises 1970 - appraisal	Mr W J Carney	LT
	1300	L U N C H		
7	1400 - 1455	Syndicate discussion (on Serial 6)		MSR
8	1500 - 1525	AWDREY - DIADEM	Mr G A Potter	LT
		T E A		
9	1550 - 1615	Triangulation W/P	Mr R O Lane	LT
10	1620 - 1640	Introduction to AWDREY/DIADEM Exercise	Mr W J Carney	LT
11	1645 - 1730	AWDREY/DIADEM Exercise		MSR
	1900	D I N N E R		

Serial	Date/Time	Subject	Responsible	Location
	TUESDAY 19 JANUARY			
12	0900 - 0930	Training Policy	Obs Cdr A J Lardner	LT
13	0935 - 1015	Standard Operating Procedures	Obs Lt A Luke	LT
		C O F F E E		
14	1045 - 1115	Changeover Panel	Obs Lt E A Trowbridge	LT
15	1120 - 1150	Training	Obs Lt S L Coffey	LT
16	1155 - 1230	Communications	Obs Lt E A Trowbridge	LT
	1300	L U N C H		
17	1400 - 1420	Introduction to Communications Exercise	Mr G A Potter	DT
18	1425 - 1600	Communications Exercise		MSR
		T E A		
19	1630 - 1710	Open Forum (on Serials 12-16)		DT
	1900	D I N N E R		
	WEDNESDAY 20 JANUARY			
20	0900 - 0930	Warning Teams	Mr R O Lane	DT
21	0935 - 1030	Warning Team Exercise		MSR & MLT
		C O F F E E		
21	1100 - 1230	Exercise continues		MSR & MLT
	1300	L U N C H		
21	1400 - 1530	Exercise continues		MSR & MLT
		T E A		
21	1600 - 1730	Exercise continues		MSR & MLT
	1900	D I N N E R		MSR & MLT

Serial	Date/Time	Subject	Responsible	Location
	THURSDAY 21 JANUARY			
22	0900 - 0930	Review of the ROC, 1970	Mr H E Lea	LT
23	0935 - 1005	Cash Accounts	Mr A Manning	LT
24	1010 -1040	Equipment accounts	Obs Lt C Berry	LT
		C O F F E E		
25	1110 - 1140	Administrative Structure	Obs Cdr A J Lardner	LT
26	1145 - 1215	Operational Structure	Mr R O Lane	LT
27	1220	Payment of Bills and Dispersal Arrangements	Mr A J Murphy	LT
		L U N C H		
28	1400 - 1515	Open Forum (on Serials 22-26)		LT
		T E A		
29	1545 - 1745	Security	Mr J Roy	LT
	1900 for 1930	DINING IN NIGHT		
	FRIDAY 22 JANUARY			
30	0900 - 0930	Finance	Mr W J Carney	LT
31	0935 - 1000	Sirens : future proposals	Mr G A Potter	LT
		C O F F E E		
32	1030 - 1100	Premises : long term proposals	Mr W J Carney	LT
33	1115 - 1200	Open Forum		
	1230	L U N C H and D I S P E R S A L		

SIREN.

£50,000 maintenance p.a.
7½ m. repl.

HARGRAVE BATE LEEDS
85 Pumps
94 Hand operated.

or 25 Pneumatic sirens

	P	Hand	
Kent	251	69	48 pns.
Man	261	182	20
Wales	72	304	41

80' steel mast   Head 6' tall (5 psi)   (or lattice)

Machinery chamber underground.
Diesel & compressor.
elec. battery charging motor.
Electronic signal selector & fault reporter

6c/m air
4 signals @ 1 min on 1 charge.

1st trial NOV 1969.   Just under 3m apart.

2nd trial   11 pumps.
20' tubes 2 pns. 1 + 1

Wingate Farm.
Army Apprentice School.

Both.
1 2nd rate ½ mm.

UK 2,000 pns.   £10m.

To cover towns / crowded areas   10 pns.

COMPRESSED AIR SIRENS

Existing Electric Siren - this consists of an electric motor which rotates rotors within voice boxes at either end thus producing a sound. They are capable of producing two signals only.

Compressed Air Sirens - An electric motor drives a disc which has four holes equidistant from each other. The siren casing cover has four identical holes and the sound is created by air passing through the holes when they line up either fully or partially. The note is determined by the speed at which the disc revolves and the amount of sound by the volume of air passing through the holes.

The air flow is controlled by a solonoid valve which responds to a signal given either by remote control, telephone line or radio or manually from the control cabin. The same signal operates the motor which drives the disc.

It is considered that these sirens best meet the Branch criteria because they work independently of public power supplies and so would be available for use after attack; produce a minimum of four distinctive signals so that attack and fall-out warnings could be given leaving still a capacity for biological warfare and chemical warfare.

These sirens produce 122 db at 33 yards whereas a conventional electric siren produces 101 db at the same distance. The law of sound propogation states that volume decreases by 7 db as the distance from the source doubles. Hence, the range of the compressed air siren is of the order of 3 miles compared with that of $\frac{3}{4}$ mile for an electric siren.

The siren head can be mounted either on a building or on a lattice or tubular mast.

At the foot of the mast (or in the basement of a building) there are two units:-

i. Machinery container

This is normally underground if it is not housed in a building. This container houses the compressor, diesel engine, which works both the compressor and a generator for charging a 24 volt battery and the electronic cabinet. Both compressor and generator are air-cooled.

The container is a horizontal steel cylinder and is large enough to house a man to operate the manual controls.

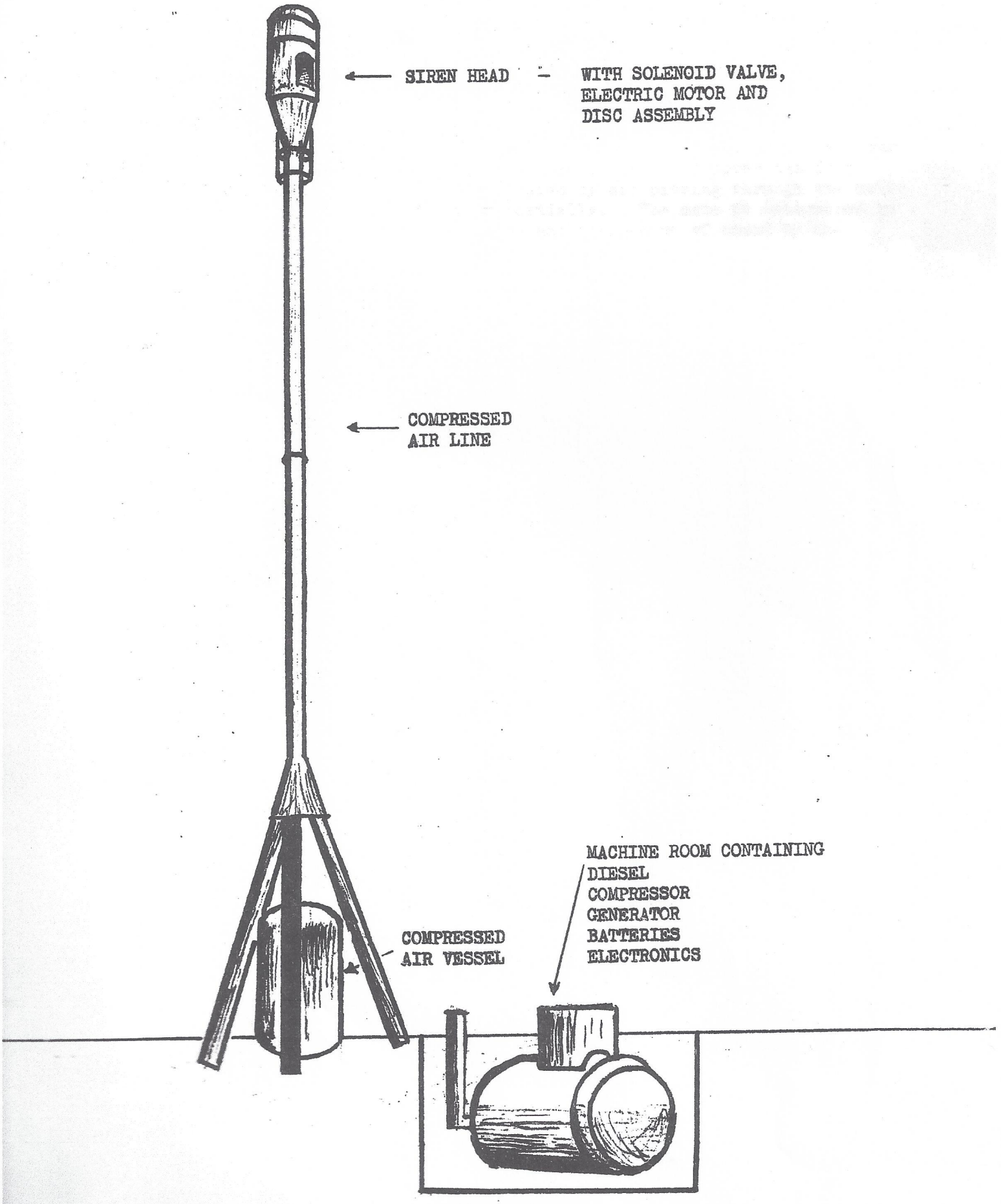
The electronic cabinet includes instruments which give indication of automatically recorded faults - the latter include failure by the compressor to run automatically at pre-determined intervals, drops in air pressure, shortage of fuel oil etc.

ii. Compressed Air Container.

This is situated above ground adjoining the mast and has a capacity of 5.6 cubic metres which will give 4 continuous signals of one minute each without loss of power and without re-charging. It has a normal operating pressure of 15.5 atmospheres.

January 1971

WARNING & MONITORING BRANCH


SIREN HEAD – WITH SOLENOID VALVE, ELECTRIC MOTOR AND DISC ASSEMBLY
COMPRESSED AIR LINE
COMPRESSED AIR VESSEL
MACHINE ROOM CONTAINING DIESEL COMPRESSOR GENERATOR BATTERIES ELECTRONICS