

HO 228

Citable Reference	Description	End Date
HO 228	Home Office: Scientific Adviser's Branch: Reports (Z Series). The Z series of reports deals with the effects of a possible nuclear war on the civil population and measures intended to mitigate those effects. The majority of the pieces are, in fact, collections of papers given to Civil Defence Regional Scientific Advisers at their annual conferences or at other meetings called to discuss specific topics.	1970
HO 228/1	Home Office: Scientific Adviser's Branch: Reports (Z Series). Notes on the occupancy of shelters during attack by V1 weapons on London, 1944.	1948
HO 228/2	Home Office: Scientific Adviser's Branch: Reports (Z Series). USA Naval Technical Mission to Japan: extracts and notes on atomic bombs, Hiroshima and Nagasaki.	1948
HO 228/3	Home Office: Scientific Adviser's Branch: Reports (Z Series). Crater debris.	1948
HO 228/4	Home Office: Scientific Adviser's Branch: Reports (Z Series). Note on sampling method.	1948
HO 228/5	Home Office: Scientific Adviser's Branch: Reports (Z Series). Radiation hazards from atomic bombs.	1948
HO 228/6	Home Office: Scientific Adviser's Branch: Reports (Z Series). Some thoughts on the fire problem from atomic bombs.	1948
HO 228/7	Home Office: Scientific Adviser's Branch: Reports (Z Series). Notes on the distribution of the population of Greater London.	1949
HO 228/8	Home Office: Scientific Adviser's Branch: Reports (Z Series). The effect of window opening on the fire risk in domestic property.	1949
HO 228/9	Home Office: Scientific Adviser's Branch: Reports (Z Series). The hydrogen bomb: draft note for the director general of training.	1950
HO 228/10	Home Office: Scientific Adviser's Branch: Reports (Z Series). The resistance of concrete to explosions and projectiles.	1950
HO 228/11	Home Office: Scientific Adviser's Branch: Reports (Z Series). Papers read at the meeting held on 12 April 1950 between the staff of the Civil Defence Staff College, the Civil Defence Schools and the Scientific Adviser's Branch: radioactive ground contamination and civil defence; shelter policy and atomic casualties; problems of civilian morale; the potentialities of nerve gas as a chemical weapon agent.	1950

- HO 228/12 Home Office: Scientific Adviser's Branch: Reports (Z Series). The zoning of towns for 1949 fire susceptibility.
- HO 228/13 Home Office: Scientific Adviser's Branch: Reports (Z Series). Papers read at the 1951 meeting held on 6-8 November 1950: deaths from the explosion of an atomic bomb more or less powerful than that used at Nagasaki; debris, its distribution and the means of negotiating it; the zoning of towns for fire susceptibility; mustard gas on cities; social and economic effects of German air raids on the UK in World War II; estimates of homeless from atomic, explosive and incendiary bomb attack; the possible economic effects of atomic attack on centres of UK population; the risk of inhaled or ingested fission products compared with the external radiation risk; a problem connected with fallout.
- HO 228/14 Home Office: Scientific Adviser's Branch: Reports (Z Series). Summary of papers read 1951 at the meeting held on 16-17 May 1951: possible trend of future developments in atomic weapons; experimental developments in air raid warnings; regional scientific advisers and technical aspects of reconnaissance; decontamination; some aspects of the debris problem arising from an airburst atomic bomb assumed to burst over Trafalgar Square; respirators and protective clothing for civil defence personnel; an appreciation of radiological hazards in time of war; nerve and mustard gas; the atomic bomb as a fire raiser; memorandum on the use of radiation metering instruments in civil defence operations and training; discussion on practical monitoring and the present position regarding policy and organisation.
- HO 228/15 Home Office: Scientific Adviser's Branch: Reports (Z Series). Papers read at the 1952 meeting held on 7-9 April 1952: Lessons from incendiary attacks on Hamburg; fireguards, to be or not to be; assessment of an attack on a city area with mustard gas; shadowgraphs; influence of the height of burst on the effects of an atomic bomb; some chemical warfare problems; combined operations; obstruction by debris in city streets after an atomic attack.
- HO 228/16 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1953 of the Regional Scientific Advisers for Civil Defence held at the CD Staff College Apr 1953: strategic assumptions for CD; CD aspects of the Monte Bello trial; warning systems and the general public; some factors affecting shelter design and policy; the allowable radiation dose in wartime and its implications; civilian behaviour under air attack; implications of FP (fission products) deposition.
- HO 228/17 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1954 of the Regional Scientific Advisers for Civil Defence held at the CD Staff College 1-

3 June 1954: impact of hydrogen bomb on civil defence; a theoretical evacuation study; expected scale of types of attack; thermal effects of the British atomic bomb trials; gamma ray penetration at the Woomera tests; Admiralty gamma ray measurements at Monte Bello and Woomera; the work of the Scientific Advisers in the regions; training of radiac officers; radioactive training grounds; biological warfare; hazards of radioactive contamination from a water burst; agricultural problems resulting from a water burst; recent trends in radiac instrumentation.

- HO 228/18 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1955 of the Regional Scientific Advisers for Civil Defence held at the CD Staff College 23-25 May 1955: the consequences of a thermonuclear explosion; fallout from a groundburst bomb; the characteristics of residual radioactivity; the fallout and the meteorological problems; the physiological effects of radiation; the contamination of water supplies; hazards to grazing animals in the period immediately following a nuclear explosion; hazards from fallout to vegetation immediately following a thermonuclear explosion; monitoring and plotting of fallout; problems in the fallout area; technical reconnaissance; leader equipment; concluding discussion.
- HO 228/19 Home Office: Scientific Adviser's Branch: Reports (Z Series). The radiation dose to 1956 human tissues from natural sources.
- HO 228/20 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1957 of the Regional Scientific Advisers for Civil Defence held at the CD Staff College 4-6 June 1957: civil defence policy; fallout prediction from meteorological information; the work of the Radiobiologist Research Unit; introductory talk on fallout plotting; aerial survey and possible applications to civil defence; report on tests on structures, of atomic trials; radiological work during the Buffalo atomic trial; thermal radiation; chemical warfare-training of radiac officers.
- HO 228/21 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a course 1957 given to university physics lecturers at the Civil Defence Staff College 8-11 July 1957: nuclear weapons and their effects; blast from nuclear weapons; thermal radiation; biological effects of nuclear radiation; radiological control in the damaged area; control of civil defence forces; protection afforded by buildings against gamma radiation from fallout; Meteorological aspects of radioactive fallout; fallout plotting; public control in a fallout area; introductory talk on fallout plotting; problems of water contamination; effects of nuclear weapon attack on agriculture and food; radiological decontamination; trends in radiac instrumentation; radiac fallout simulator; assessment of the protection afforded by buildings against

- gamma radiation from fallout.
- HO 228/22 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of the 1959
conference of the Regional Scientific Advisers for Civil Defence held at the Civil
Defence Staff College 20-22 May 1958: the travel and deposition of radioactivity in
the Windscale accident; fallout - an analysis of the most recent data; meteorology
and the fallout prediction; fallout plotting and reporting up to the regional level;
new plans for the control of civil defence operations; the regional scientific
organisation in relation to new operational plans; the effects of ionising radiation
on human beings; radiation hazards.
- HO 228/23 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1959
of the Regional Scientific Advisers for Civil Defence held at the CD Staff College
12-14 May 1959: operation of the scientific team at region; training of scientific
intelligence officers; local authority training and exercise 'Arc'; radiation
tolerance doses in civil defence; deployment of civil defence forces into the damaged
areas contaminated by fallout; survey of protection against fallout afforded by
houses and other buildings; radioactive decontamination; proposed food monitoring
organisation; study of 'Torquemada' fire problems after a megaton explosion.
- HO 228/24 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1961
of the Regional Scientific Advisers for Civil Defence held at the CD Staff College
10-12 May 1960: measurement of deposition and decay rates; food monitoring; the
treatment of casualties from heavy dosage; effects of radiation on fertility;
structural research for civil defence; display of fallout information in Central
Government Headquarters; account of recent trials; the decay of fallout radiation;
information derived from nuclear radiation injury from accidents.
- HO 228/25 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1962
of the Regional Scientific Advisers for Civil Defence held at the CD Staff College
15-17 May 1962: civil defence 1962; Soviet strategic air threat to the United
Kingdom; blast effects of high yield weapons; effects of high yield weapons -
interference with communications and electrical equipment; high explosive trials at
Suffield, Canada; dispersal policy; modern concepts for chemical and bacteriological
weapons; local authority controls-ventilation and other problems; training of
scientific intelligence officers; planning assumptions for the assessment of food and
water hazards.
- HO 228/26 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1963
of the Regional Scientific Advisers for Civil Defence held at the CD Staff College

28-30 May 1963. Missing at transfer.

- HO 228/27 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of conference of 1964 the Regional Scientific Advisers for Civil Defence held at the CD Staff College 12-14 May 1964: resource evaluation for resource management; damage assessment; emergency planning for continuity of Government; methods of resource analysis in Canada; exercise CINLOG 1965; post attack problems; post attack problems of farming and agriculture in the UK; fallout predictions by probability; biological hazards of exposure to blastwaves; ionising radiation in leukaemia.
- HO 228/28 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference 1966 of Regional Scientific Advisers for Civil Defence held at the CD Staff College 13-15 September 1965: warning and monitoring organisation; communal shelters survey results; communal shelters; leadership; biological warfare implications for civil defences; chemical weapon defensive equipment; development of improved nuclear burst detector; discussion on training of scientific intelligence officers; use of scientific manpower; ERDs (effective residual doses) and their application to public control; discussion on combined hazards of external and internal radiation; application of input and output economic models.
- HO 228/29 Home Office: Scientific Adviser's Branch: Reports (Z Series). The compilation and 1966 display of dose rates decaying with time.
- HO 228/30 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report on a conference 1966 of Regional Scientific Training Officers held at Civil Defence Staff College 12-14 September 1966: radiation measuring techniques and demonstration of instruments; radio chemistry analytical techniques; a bomb alarm system civil defence - demonstration of detection equipment; methods of seismic detection; fallout and foodstuffs; effects of radiation on plants; recovery from the biological effects of exposure to radiation; demonstration of the use of ADT (automatic data transmission) for the Royal Observer Corps groups to sub regional control; future timing of the Scientific Intelligence Officers' discussion.
- HO 228/31 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report on a conference 1967 of Regional Scientific Advisers and Regional Scientific Training Officers held at the Civil Defence Staff College 23-25 May 1967: reorganisation of the Civil Defence Corps and local authority civil defence organisation; planning development in the United Kingdom Warning and Monitoring Organisation (UKWMO); the Home Office submission to the Medical Research Council; fire storms and project `Flambeau'; new proposals for simplifying fallout data processing system in warning and monitoring organisation;

the world weather watch - a new era in forecasting; the present position on bacteriological weapons; the present position on chemical weapons; fallout from the bomb of 1966; Scientific Advisers' Branch approach to the study of survival problems; general discussion on various aspects of training. Missing at transfer.

- HO 228/32 Home Office: Scientific Adviser's Branch: Reports (Z Series). Notes on the Regional Scientific Advisers' Conference held on 15 May 1968. 1968
- HO 228/33 Home Office: Scientific Adviser's Branch: Reports (Z Series). New consideration on the control of radiological exposure and on the controlled emergence and general release of the public from fallout shelter. 1969
- HO 228/34 Home Office: Scientific Adviser's Branch: Reports (Z Series). Study, February 1970. 1970
- HO 228/35 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report on a conference of Regional Scientific Advisers and Regional Scientific Training Officers for Civil Defence held at CD School, Easingwold, 28-30 September 1968: wartime doses of radiation; implications for radiation casualty assessment; biological warfare-an assessment; chemical warfare-an assessment; awdley, diadem and seismic installations; pneumatic sirens; demonstration of simplified fallout processing; the use of computers for casualty estimates; automation of fallout reporting and predictions; central training of scientific intelligence officers - progress report; sub regional training; general discussion; appendix 1 scientific training and consultation; appendix 2 memorandum on the organisation of scientific intelligence officer services for Home Defence. 1970
- HO 228/36 Home Office: Scientific Adviser's Branch: Reports (Z Series). Report of a conference of the Regional Scientific Advisers for Civil Defence held at the Civil Defence Staff College 16-17 October 1951. 1951