



AIR FORCE MATERIEL COMMAND

AIRCRAFT HALON USE  
AND MANAGEMENT IN  
THE AIR FORCE

NORMAN TAFLINGER  
SAN ANTONIO AIR LOGISTICS CENTER  
KELLY AIR FORCE BASE, TEXAS



# AIR FORCE REGULATION 19-15

30 SEPTEMBER 1991

## ENVIRONMENTAL PLANNING

REDUCTION IN USE OF CHLOROFLUOROCARBONS, HALONS,  
AND OTHER SUBSTANCES THAT DEplete STRATOSPHERIC OZONE

OPR HQ USAF/CEVV (MAJ T MOREHOUSE)

### IMPLEMENTS -

- MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER, AS AMENDED
- PRESIDENTIAL DIRECTIVES
- CLEAN AIR ACT AMMENDMENTS OF 1990
- DOD DIRECTIVE 6050 9
- EPA REGULATIONS THAT APPLY



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## AFR 19-15 CATEGORIES OF OLDS USE

- I MISSION CRITICAL  
DIRECT COMBAT-MISSION IMPACT & NO ALTERNATIVE  
STOP HALON USE BY JAN 2000  
BANKING MAY DELAY LOSS OF USE
- II ESSENTIAL USE  
INDIRECT COMBAT-MISSION IMPACT  
STOP HALON USE BY JAN 1996
- III NON-ESSENTIAL USE  
SUPPORT ROUTINE OPERATIONS OR ALTERNATIVES EXIST  
STOP HALON USE BY JAN 1994



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## AIR FORCE POLICY SPECIFIC TO HALON

- 1 - HQ USAF APPROVAL REQUIRED FOR FACILITY SYSTEMS
- 2 - PORTABLE AIRCRAFT EXTINGUISHERS ONLY  
OR AS APPROVED BY HQ USAF
- 3 - DISCHARGE DURING TRAINING OR TESTING PROHIBITED
- 4 - RELEASE DURING TESTING OR INSPECTION PROHIBITED
- 5 - CEASE PROCUREMENT DURING OCTOBER 1991
- 6 - BANKING WILL NOT REPLACE ALTERNATIVE RESEARCH



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# CHIEF OF STAFF ACTION MEMORANDUM

1 JANUARY 1993

AIR FORCE BAN ON PURCHASES OF OZONE DEPLETING CHEMICALS

IMPLEMENTS -

NAT DEF AUTH ACT FOR FY 1993, TITLE III,

PUBLIC LAW 102-484, SECTION 326

SEC OF DEFENSE (AQ) POLICY FOR ODC' s - 11 AUG 92



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## AIR FORCE POLICY -

- 1 - RECYCLING AND BANKING BY DLA ONLY FOR AIRCRAFT FIRE SUPPRESSION AND REFRIGERATION SYSTEMS REQUIRED FOR FLIGHT SAFETY, SURVIVABILITY, AND/OR CERTIFICATION
- 2 - PURCHASE OF NEW HALON AFTER 1 JUNE 93 PROHIBITED
- 3 - NEW DESIGNS SHALL NOT REQUIRE HALON
- 4 - REMOVE HALON FROM SPECS, STDs, & T O s
- 5 - FUEL TANK INERTING IN COMBAT OR EMERGENCIES ONLY
- 6 - ELIMINATE FALSE ALARMS & CHANGE USE PROCEDURES
- 7 - PHASE OUT FLIGHT LINE & FACILITY HALON SYSTEMS
- 8 - CONVERT AUTOMATIC FLOODING SYSTEMS TO MANUAL USE
- 9 - INVENTORY AIR FORCE HALON IN PLACE AND IN STOCKS
- 10 - BANK ODC' s FROM CLOSED BASES & RETIRED AIRCRAFT
- 11 - METRICS, WAIVER AUTHORITY, REPORTING TO CONGRESS



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# U S AIR FORCE HALON

AS REPORTED TO HQ AFMCG/CEV  
23 MARCH 1993

(AIR COMBAT COMMAND REPORT NOT INCLUDED)

HALON TYPE	ON HAND LBS	IN PROCESS LBS
1202	10,712	50,721
1211	5,246 <sub>3</sub>	2,067 <sub>3</sub>
1301	504 <sub>3</sub>	1,081,815
2402	158	766

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TOTAL	5,761 <sub>3</sub>	3,200,483
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## HALON 1301 IN AIRCRAFT FIRE PROTECTION SYSTEMS

126	C-5' s	112,480	388	FB-111' s	1,746
742	KC-135' s	82,816	93	H-1' s	1,414
40	EC-135' s	216	49	H-53' s	872
724	C-130' s	29,248	96	B-1' s	490
644	A-10A' s	25,760	34	E-3A' s	428
270	C-141' s	9,410	61	H-3' s	152
867	F-15' s	5,722	14	T-39' s	84

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270,838 LBS OF HALON IN 4,148 AIRCRAFT





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# HALON 1202 IN AIRCRAFT FIRE PROTECTION SYSTEMS

724	C-130, s	32,942 lbs
327	F-111' s	8,274 lbs
126	C-5' s	4,914 lbs

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46,129 LBS OF HALON IN 1,177 AIRCRAFT

3,200 LBS OF HALON 1202 IN STOCK  
AT KELLY AFB



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## DEPOT LEVEL MAINTENANCE AT KELLY AFB

FIRE PROTECTION SYSTEMS ON C-5's AND C-130's  
USE HALON 1202 AND 1301 STORAGE BOTTLES

DEVELOPED THE CAPABILITY TO PERFORM HYDROSTATIC  
TESTING AND RECHARGING ON THESE BOTTLES

DEVELOPED THE CAPABILITY TO TEST THE 25 KINDS  
OF HALON STORAGE BOTTLES MANAGED AT KELLY AFB

THE AIRCRAFT PRODUCTION DIVISION IS CERTIFIED BY  
THE DEPARTMENT OF TRANSPORTATION FOR THIS WORK



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## HALON 1301 RECOVERY & RECLAMATION

BEGAN PROCUREMENT WORK IN APRIL 1991

BEGAN TOTAL HALON RECOVERY IN DECEMBER 1992

BEGAN INSTALLATION IN SEPTEMBER 1992

SYSTEM OPERATIONAL IN APRIL 1993

THE SYSTEM CAN RECOVER AND RECLAIM  
200+ LBS OF HALON 1301 PER HOUR

RECOVERY EFFICIENCY IS BETTER THAN 99%.

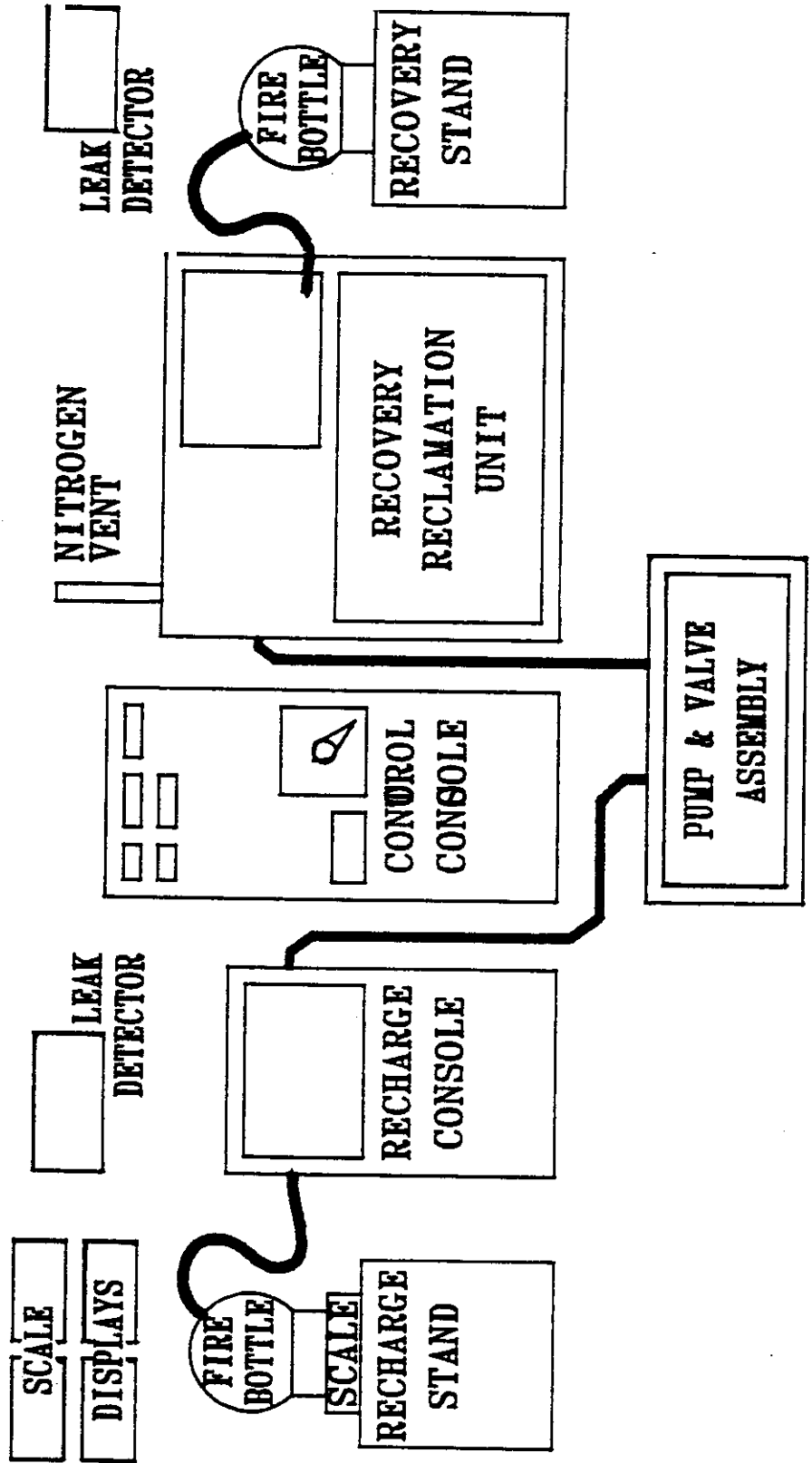
CAN SUPPORT THE ENTIRE AIR FORCE RECLAMATION  
REQUIREMENT AND THE OTHER SERVICES AS WELL

LIMITED BY STORAGE AND TEST TURN-AROUND



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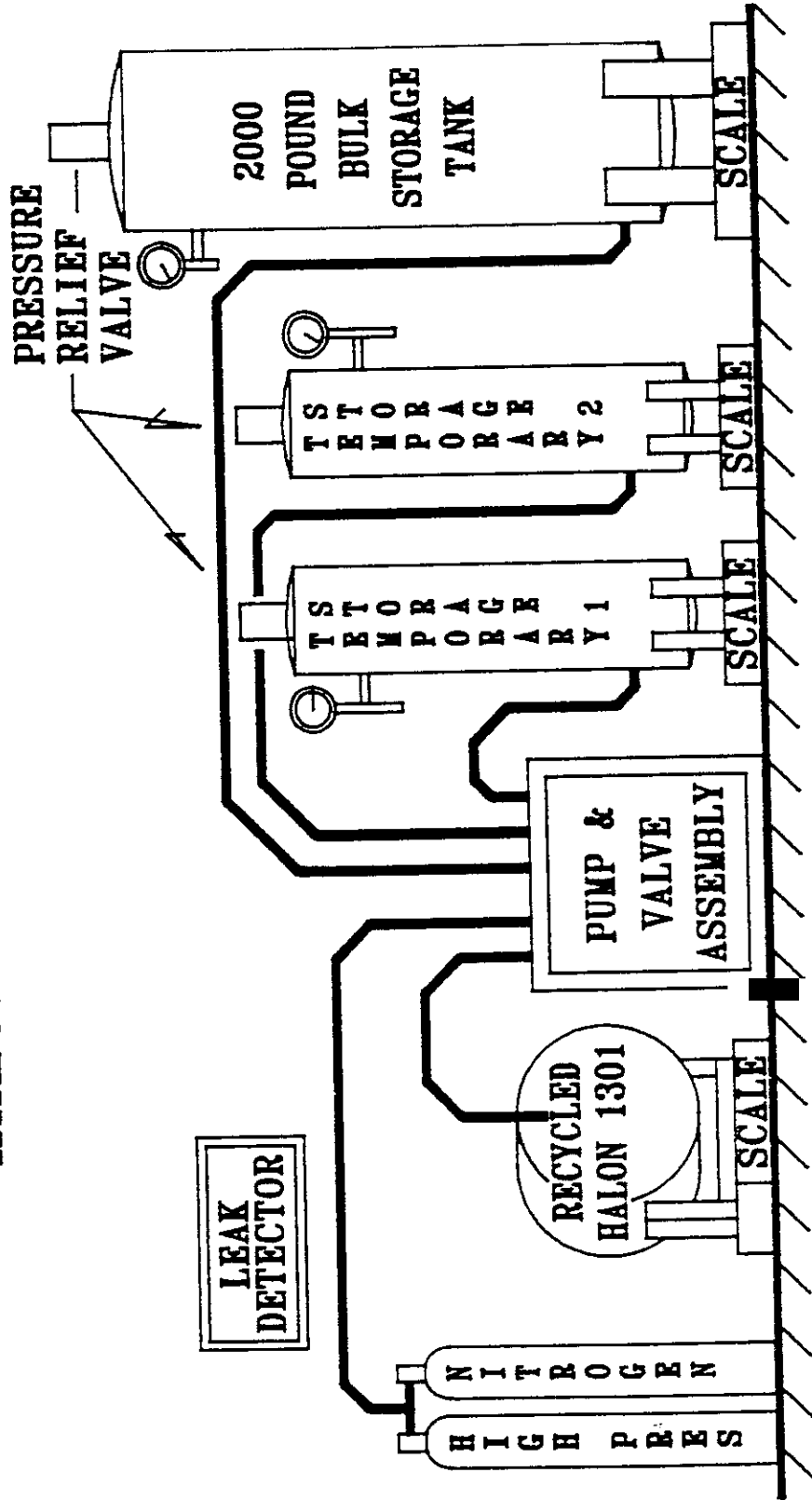
### HALON 1301 RECOVERY/RECLAMATION/RECHARGING SYSTEM





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# HALON STORAGE SYSTEM





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## HALON BANKING BY THE DEFENSE LOGISTICS AGENCY

- DLA IS PREPARING AN ALL SERVICES ODC BANK
- MISSION CRITICAL USES ONLY
  - EACH SERVICE WILL IDENTIFY ITS REQUIREMENTS  
TYPE, APPLICATION, QUANTITY, DURATION  
TO REPLACE LOSSES DUE TO RECYCLING & FIRES
  - EACH SERVICE PLACES ODC'S INTO ITS "BANK ACCOUNT"  
FROM RETIRED AIRCRAFT, FIRE & NON-MISSION CRITICAL  
COMBAT VEHICLES, FACILITY SYSTEMS, FLIGHTLINE  
BOTTLES, CLOSED AND OVERSEAS BASES
  - STORAGE OF UNREUSABLE HALON FOR DESTRUCTION
  - EACH MISSION CRITICAL USER POSSESSING A WAIVER MAY  
DRAW ON THEIR ACCOUNT TO MEET CURRENT NEEDS