successful at Ivy in that no overexposures were reported for helicopter pilots, though an equivalent of almost seven pilots would have reached 3.9 roentgens without pilot rotation in contaminated areas. On Castle, helicopters will, in many cases be the only means of recovery, and the additional problem may exist between shots of transporting by helicopters, scientific and other personnel into contaminated areas to prepare for the next shot.

3. On the basis of 13 operational helicopters functioning in recovery missions, it is estimated that 13 pilots will have reached the MPE of 3.9 roentgens prior to BRAVO (this presupposes no co-pilots during operations in contaminated areas and no pilot rotation), that 26 pilots may reach the MPE prior to ECHO and 40 pilots by the completion of YANKEE. This is a total requirement for both Air Force and Navy. Considering that the Air Force will furnish about 6/10 of the recovery pilots, its requirement will be about twenty-four helicopter pilots and the Navy, about sixteen.

4. At Ivy a 200% replacement factor was maintained throughout and rotation of pilots was on a daily basis. Insofar as this was considered uneconomical, it is suggested that pilots be replaced and returned to home stations or flying duty other than in contaminated areas after UNION and KOON. The replacement pilots could move to the forward area on call of the Navy and Air Force Task Groups. Flexibility in phasing is most advisable.

5. Expenditure of pilots will be dependent on the frequency of use, the extent and intensity of the radiation pattern, and the consideration of the recovery personnel of the requirement for conservation of pilot exposure.

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6. It is recommended that the Navy and Air Force Task Groups be advised of the additional requirements for helicopter pilots.

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J-3
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