We next describe two major components of the support infrastructure—FOLs and FSLs. As we shall see in the next chapter, the performance of these components in supporting expeditionary operations depends on the amount of materiel prepositioned at FOLs, as well as the options, such as a forward support location (FSL) near the theater or the CONUS, for supplying the remainder that is not prepositioned. We do not explicitly discuss the resupply and logistics C2 systems here, but it will be evident from the discussion that the FOL/FSL system depends heavily on both.

**CATEGORIES OF FOL**

To fight Cold War conflicts in Europe or on the Korean peninsula, the Air Force had planned to deploy massive amounts of air power to fixed FOLs, either to main operating bases (MOBs) already operated by the United States or to collocated operating bases (COBs) where a friendly air force was operating. In either case, the bulk of the deployment was aircraft and people; fuel, munitions, and most of the necessary support equipment and supplies were to be in place or moved to the FOL from storage locations.

With the new expeditionary focus, the Air Force must now consider deploying air power assets to a number of locations, each with differing characteristics. Clearly, the amount of equipment that is prepositioned can affect the timeline of deployment, the cost of setting up and operating a system of FOLs in peacetime, and the flexibility and
risks of depending on the use of those FOLs in times of crisis. For analysis purposes, we define three categories of FOL.\(^1\)

**Category 3**

A Category-3 FOL is the most austere FOL to which an ASETF would deploy. It has the minimum requirements for operation of a small fighter package—a minimum runway length of 8000 feet, a Load Classification Number (LCN) of 72 to handle C-141s,\(^2\) a working Maximum on Ground (MOG) of two (narrow-body airlifters), sufficient water to provide 8 gal/day for 1100 people,\(^3\) fuel supply of 158,000 gal/day, availability of LOX/LIN (liquid oxygen and liquid nitrogen), plus planned siting for munitions facilities. (This level of detailed knowledge implies that the field has been recently surveyed and that preplanning has indicated where facilities can be laid out.) For a Category-3 FOL, the Air Force must provide much of the airfield infrastructure, shelter for personnel, all munitions, fuel storage and distribution, and all vehicles.

**Category 2**

A Category-2 FOL is less austere than a Category-3 FOL in that it has prepared space for fuel-storage facilities (500,000 gal), a fuel-distribution system in place (e.g., refueling trucks), general-purpose vehicles for rental as well as fire and medical vehicles, medical facilities that the United States can use, and sufficient shelter for personnel and aircraft.

---

\(^1\)These definitions are roughly consistent with those tentatively proposed by various AF organizations, although there is not yet a standard terminology. These organizations include AF/ILXX (Lt Col Anthony Dronkers, personal communication, September 1998) and USAFE (U.S. Air Forces Europe).

\(^2\)The LCN expresses the relative effect of an aircraft on pavement; it depends on the aircraft’s weight, tire footprint, and tire pressure. See Norman (1996) for a detailed discussion of the LCN, as well as information for all current U.S. aircraft.

\(^3\)This is the current factor in the Air Force’s War Resupply Planning Factors database, but it is considered to be quite low.
Category 1

A Category-1 FOL has the attributes of a Category-2 FOL, plus an aircraft arresting system, minimum communications, munitions buildup and storage sites already set up, and three days’ worth of prepositioned munitions.

A given airfield may not fit cleanly into one of these categories, and further analysis may show that a more cost-effective arrangement may require that some resources be positioned differently (e.g., reserving expensive munitions such as missiles to be transported to any FOL). For the purposes of analysis, however, these categories let us consider options of prepositioning or deploying specific sets of resources.

SUPPLYING THE DIFFERENCE: FSLs AND CONUS

For each category of FOL, the resources not prepositioned must be supplied during execution to ensure that the supported force meets sortie-generation requirements. The options we consider are an FSL, a logistics operation near the theater of operations, or supply from the CONUS. Our description of the FSL is intentionally vague because there are numerous options for such facilities, ranging from active U.S. bases with airlift support, storage facilities, and repair capability, to simple cold-storage warehouses with minimal maintenance. For some of these activities, an FSL could be on a ship that can move to a theater where a crisis is brewing. Much of our ongoing and future work is aimed at informing decisions determining the scope and positioning of FSLs. In this report, we will assume that they are storage facilities from which equipment can be pulled and transported to an FOL.