RED HORSE provides the commander, Air Force forces (COMAFFOR) a dedicated, flexible, airfield and base heavy construction and repair capability along with many special capabilities that allow the joint force commander (JFC) to move and support missions as the operation dictates. RED HORSE organizations are manned and equipped to provide highly mobile, rapidly deployable echelons to support force beddown requirements and to repair war damage. These units report to a numbered Air Force during peacetime and are typically organized as depicted in the figure, Notional RED HORSE Organization.
These organizations are heavy construction entities that contain organic, self-sustaining, logistical support for vehicle maintenance, secure communications, food service, supply, and medical support. This organic support allows the unit to operate independently for extended periods of time until normal supply channels are established. RED HORSE special capabilities include water-well drilling, explosive demolition, quarry operations, concrete and asphalt batch plant operations, material testing, large expedient facility erection, and concrete and asphalt paving. RED HORSE units erect specialized structures such as aircraft shelters, dome shelters, clam shells, and expanded shelters. **RED HORSE organizations are normally not a wing asset.**

During contingencies, RED HORSE units (squadrons or groups) are capable of being deployed in a hub-and-spoke operation, exercising centralized control from the hub and executing missions from the spoke locations. This hub-and-spoke structure, depicted in the figure, Typical RED HORSE Hub-and-Spoke Configuration, centers on primary and secondary beddown echelons which support specialized construction teams tailored to individual project requirements. The construct is to deploy entire units to an operational area along with equipment and vehicles. Units are typically task- or project-oriented. As the COMAFFOR establishes requirements and priorities, the organization deploys teams to accomplish these projects. **During wartime, RED HORSE units are used as a theater asset reporting to the COMAFFOR and other engineer commander with theater-wide responsibilities.**

![Typical RED HORSE Hub-and-Spoke Configuration](image)

**NOTE:** For definitions of horizontal and vertical construction, see Appendix B
RED HORSE has a special capability to conduct expedient repairs to airfield surfaces and evaluate supporting infrastructure for potential follow-on forces. These teams can be employed using air insertion, air delivery, or ground transportation. Fundamental capabilities include initial site survey assessment or assessment of a site for chemical, biological, radiological, and nuclear materials; removal/demolition of obstructions; expedient force protection construction; repair of airfield surfaces for limited airlift operations; testing for potable water sources; and performance of airfield pavement assessment evaluations. Air inserted RED HORSE forces can be augmented by explosive ordnance disposal to conduct limited clearance of unexploded explosive ordnance/improvised explosive devices and explosive hazards, and by fire emergency services to conduct limited firefighting, rescue, and emergency medical services.

Senior Airman Jonathan Jensen uses a concrete hummer vibrator to disperse the concrete against the wall of a K-Span building Aug. 29, 2013, at Nellis Air Force Base, NV. Training projects help with base construction efforts while honing wartime responsibilities and proficiencies for 555th RED HORSE Squadron (RHS) members. Jensen is a structures journeyman assigned to the 555th RHS. (U.S. Air Force photo/Senior Airman Daniel Hughes)