



BASE Line

January/February 2005

Steven M. Baldrige, P.E., S.E.

During our 10 year history, BASE has successfully *evaluated* and *strengthened* numerous existing facilities, both military and private sector. By combining cutting-edge antiterrorism specialization/training with traditional project design, Baldrige & Associates Structural Engineering, Inc. is capable of providing clients with unmatched restorative engineering:

Todd P. Dwight, S.E.

Frank K. Humay, Ph.D., S.E.

- **U.S.S. Arizona Memorial Visitor Center**, Pearl Harbor, HI: Due to extremely poor soil conditions, the Visitor Center was constructed on a foundation system that allows the structure to be periodically re-leveled as differential settlement occurs. Portions of the structure have exhausted the capacity for any further adjustment. BASE was able to determine the feasibility of improving the existing structure vs. constructing a new facility. We also provided new facility preliminary design documents and cost analysis that incorporated antiterrorism concerns, due to the memorial's invaluable national significance.

Evan A. Mizue, S.E.

Rebecca A. Lee, P.E.

Daniel R. Popp

Tracy M. Duke

Fe O. Rodillas

Marcial J. Sialana

Woo Sung Chang

Aubrey S. Renteria

- **FY02 MCON Bachelor Enlisted Quarters P-594**, Pearl Harbor, HI: Our office was responsible for analyzing the existing structure to accommodate new room layouts while meeting DoD progressive collapse requirements. This work included cutting new door openings through existing shear walls. This was accomplished economically by designing the strengthening of the interior shear walls and header beams with the use of fiber reinforced polymer (FRP) composites.

John D. Chesak, P.E.

- **Headquarters 15th Airlift Wing (PACAF)**, Hickam Air Force Base, HI: BASE was responsible for improving the physical security of this building. In order to meet the United Facility Criteria's DoD minimum Antiterrorism Standards, BASE identified key areas that required improvement. This included changes to the parking areas and the hardening of the facility entrances.
- **Headquarters Pacific Air Forces (PACAF)**, Hickam Air Force Base, HI: To more accurately determine the site seismicity, material properties and reinforcement continuity of the existing structure, an investigative program was developed and coordinated by BASE. This included progressive collapse analysis, blast evaluation and seismic/hurricane resistance.
- **Renovated Building 102**, Wheeler Army Airfield, HI: Originally constructed in 1941, this reinforced concrete building is undergoing a renovation that includes a seismic upgrade. Our office provided an alternate design that reduced the construction timeline, which was necessary for this essential-use (kitchen/dining room) building.

"BASE is always looking for unique projects on which to apply our innovative and creative engineering talents."

