**Our Ground Geodetic Surveyor Brethren**

**For the first 14 years of their existence, the ground geodetic surveyors were a part of the Air Force’s photomapping community and were assigned to photomapping units. Because they didn’t have an aerial mission, never rose above the Squadron organizational level, and were nearly always geographically separated from their parent organization, they were largely under-recognized and under-appreciated. This in spite of the fact that they once numbered over 460 people, were headed by an O-6, had Detachments spread over much of the U. S., for the most part worked on programs and projects with as high or higher priorities than our flying units, and they carried a higher Unit Precedence Rating than any other Photomapping unit.**

**Their history is an interesting one and much of it can be found on our website under the Geodetic Survey Squadron button. However, some of the very early years have not been covered, so I would like to briefly cover the entire 14 years mentioned above in hopes that at least some of our readers will find it informative, if not interesting.**

**It all began in the early 1950s when the Air Force began development of their nuclear ICBM missiles. In order to assure target destruction and yet, at the same time, limit collateral damage, they needed systems with the highest attainable accuracy. They realized that unknowns at the target end would largely monopolize the error budgets of these systems, so error sources at the launch end would have to be minimized. Key do doing this would be knowing the precise geodetic coordinates, the elevation, the gravity value, and a precise azimuth orientation for the inertial measurement unit of each missile at each launch site. In addition, enough accurate gravity information would have to be collected in the areas surrounding the launch sites to enable the development of a sufficient Launch Region Gravity Model (LRGM) with which to compensate the ballistic track of the missiles during the launch phase while they are low and slow.**

**At that time the Air Force did not have the organic resources to accomplish the necessary surveys. Thus, they had to assign the responsibility to someone, to develop such capabilities and accomplish the surveys. They chose the Air Photographic and Charting Service (APCS). In the following chronology I will list key dates in the development of this capability and later, those required for other, follow-on missions. At the same time I will note how organizationally the surveyors were integrated into and then phased out of the Photomapping linage:**

**1 May 1954: HQ. Air Force assigns USAF Photo-Mapping and Aerial Electronic Surveying responsibilities to the Air Photographic and Charting Service (APCS).**

**February 1956: HQ. Air Force assigns missile site Ground Surveys to APCS. Because of the lack of Geodesists and Geodetic Surveyors in the Air Force, APCS contracts with the U.S. Coast and Geodetic Survey to perform the site surveys.**

**27 March 1958: As the number of missile sites increases and the organic Air Force capabilities expand, Operating Location 1 (OL-1) of the 1370th Photo-Mapping Group is established at Orlando AFB, FL to assume day-to-day responsibility for the surveys. The Ground Surveyors enter the Photomapping linage.**

**September 1958: OL-1 of the 1370th Photo-Mapping Group is inactivated and replaced by OL-1 of the 1373rd Mapping and Charting Squadron, under the Group.**

**Early 1959: The 1370th Photo-Mapping Group is moved from Palm Beach AFB, FL to Turner AFB, GA.**

**1 July 1959: The expanding workload and increasing complexity of the required ground surveys leads to the establishment of a unit dedicated solely to the geodetic, astronomic and gravity missile site surveys worldwide. This new unit is designated the 1381st Geodetic Survey Squadron (Missile), still under the 1370th Photo-Mapping Group.**

**1 January 1960: Due to expansion of its mission, the 1370th Photo-Mapping Group is redesignated the 1370th Photo-Mapping Wing. It takes with it the responsibilities for the missile site surveys.**

**1 April 1960: Detachment 1 of the 1381st GSS (Missile) is activated at Vandenberg AFB, CA.**

**1 October 1962: Five more Detachments of the 1381st are formed at Minuteman Bases.**

**January 1964: As the missions of the 1381st become more diversified, the word Missile is dropped from its name, and the Squadron becomes the 1381st Geodetic Survey Squadron.**

**1 October 1965: The 1370th Photo-Mapping Wing is detached from the APCS and assigned directly under MATS Headquarters. The 1381st GSS moves to F.E. Warren AFB, WY still under the 1370th PMW.**

**July 1967: The 1370th PMW is inactivated at Turner AFB, GA. Photomapping resources are reactivated at Forbes AFB, KS as the Aerospace Cartographic and Geodetic Service (ACGS), one of the Technical Services of the Military Airlift Command (MAC). The Ground Survey resources are assigned to the ACGS as the 1381st Geodetic Survey Squadron.**

**Fall 1968: The 1381st Geodetic Survey Squadron is redesignated the 1st Geodetic Survey Squadron.**

**1 July 1972: The Geodetic Survey assets split from the Photomapping linage as the Defense Mapping Agency (DMA) is formed and these assets are assigned to the DMA Aerospace Center as the Geodetic Survey Squadron.**

**August 1976: The Geodetic Survey assets of the military Services are consolidated at F. E. Warren AFB and they are reassigned from the Aerospace Center to the DMA Topographic Center.**

**September 1978: The DMA Hydrographic Center is merged with the DMA Topographic Center. The Geodetic Survey Squadron is assigned to the new Hydrographic/Topographic Center (DMA HTC) at the Division Level.**

**April 1980: The Geodetic Survey Squadron is elevated from Division to Department Level within the DMA HTC.**

**1989: The organizational status of the Geodetic Survey Squadron is elevated once again when they are redesignated as the Geodetic Survey Group within the DMA HTC.**

**October 1993: With the Cold War ended, the Geodetic Survey Group is deactivated and the Air Force drops Geodetic Surveying as a career field. Responsibility for geodetic surveys is initially assumed by the DMA Department of Geodesy and Geophysics, under whom the surveys are accomplished by a small cadre of civilian surveyors or through civilian contracts.**

**Later: When the DMA was inactivated on 1 October 1996, the new National Imagery and Mapping Agency (NIMA) assumed responsibility for Geodetic Surveying within the DOD. On 24 November 2003, the NIMA was renamed the National Geospatial-Intelligence Agency (NGA) and they have retained the Geodetic Surveying mission ever since.**

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