U.S. ANTARCTIC GEOGRAPHIC FEATURE NAMING: CONTEXT AND HISTORY

National Context

The United States' national interests in Antarctica have a long history, commencing with commercial sealing enterprises of the late 18th century in Antarctic waters, as well as exploration activities, whether sponsored by the U.S. government, e.g., The United States Exploring Expedition of 1838-1842, sometimes called the Wilkes Expedition; The United States Antarctic Service Expedition of 1939-1941; or organized privately, e.g., the Byrd expeditions of the 1920s. In the years following World War II, and driven significantly by a desire to avoid territorial conflicts as the Cold War evolved, the U.S. took a lead role in international discussions that culminated in the signing of the Antarctic Treaty on 1 December 1959. This agreement provides for the peaceful use of Antarctica, principally for scientific research, and holds territorial claims in abeyance. The Treaty has been very successful and continues to guide international stewardship of the region. U.S. activities in the Antarctic are organized in accordance with U.S. laws and regulations that implement the Antarctic Treaty and its annexes. The U.S. Department of State is the lead agency for U.S. involvement in Antarctic Treaty activities and the National Science Foundation (NSF) is the lead agency for the U.S. Antarctic Program (USAP).

The United States, often in partnership with other Antarctic Treaty nations, has been active in mapping activities both for basic topography and more recently for satellite image mapping in support of scientific research and Antarctic operational activities. Naming of geographic features in Antarctica has been an integral part of these efforts. The U.S. Geological Survey (USGS), in collaboration with the NSF, has been the principal custodian of Antarctic mapping information, and since 1995 the USGS, through the U.S. Board on Geographic Names (BGN) Advisory Committee on Antarctic Names (ACAN[1]), has served as the lead agency for managing U.S. geographic naming in Antarctica.

ACAN frequently coordinates and communicates its naming activities with naming authorities in other Antarctic Treaty nations. General agreements on conventions for geographic naming in Antarctica are normally made through the Standing Committee on Antarctic Geographic Information (SCAGI), which is convened under the auspices of the Scientific Committee on Antarctic Research (SCAR). SCAR is an organization of the International Council of Science (ISC), whose mission is "initiating, developing, and

[1] The U.S. Board on Geographic Names is a Federal body created in 1890 and established in its present form by Public Law in 1947 to maintain uniform geographic name usage throughout the Federal Government. Sharing its responsibilities with the Secretary of the Interior, the Board promulgates official geographic feature names with location attributes as well as principles, policies, and procedures governing the use of domestic names, foreign names, Antarctic names, and undersea feature names.

coordinating high quality international scientific research in the Antarctic region (including the Southern Ocean), and on the role of the Antarctic region in the Earth system." In addition, SCAR provides independent scientific advice to the Antarctic Treaty Organization.

The USGS maintains the Nation's database of official Antarctic geographic feature names as part of the Geographic Names Information System (GNIS). The names in this database are considered official for use on any U.S. government map or publication. The international community, through SCAR and SCAGI, maintains a repository of names approved by all countries active in Antarctica. This resource is the SCAR Composite Gazetteer of Antarctica (commenced 1992) and is critical for avoiding duplicative names, and for standardizing, to the extent feasible, naming practices. This Gazetteer relies on up-to-date information from geographic naming authorities in each of the Antarctic Treaty nations.

History of U.S. Antarctic Geographic Feature Naming

The matter of geographic naming in Antarctica differs from that of any land area of comparable size. Antarctica has no permanent settlements, and personnel assigned to year-round and seasonal stations are rotated on a regular basis. The continent has been visited and explored by representatives of many nations, who, by their heroic efforts to broaden society's knowledge of this land of ice, snow and rock, have fully demonstrated the international nature of the world of science. Most major topographic features of Antarctica have been discovered and mapped, but a significant number of secondary and tertiary features remain unnamed, and remote sensing research has facilitated the on-going discovery of important geographic features beneath the ice sheet, as well as undersea features in coastal regions of the Antarctic.

Through U.S. naming policy, implemented by ACAN and the U.S. BGN, decisions on Antarctic names are based on priority of application, appropriateness, and the extent to which usage has become established (see policy document). In addition to descriptive names, geographic features can be named in honor of individuals or organizations whose work has contributed to knowledge of the Antarctic and to U.S. national interests in the Antarctic or significant events involving U.S. Antarctic activities.

ACAN, under the leadership of USGS, manages a process whereby individuals can propose names for ACAN's consideration. ACAN's recommendations are submitted to the U.S. BGN for the final decision. The USGS maintains a database that records the approved name and related descriptive information. The U.S. provides these approved

geographic feature names and associated information for inclusion in the SCAR Composite Gazetteer.

Note: The names of Antarctic buildings, facilities, stations, and other installations, not being natural features, do not fall within the purview of the U.S. BGN or ACAN. These names may nevertheless be significant in the overall nomenclature and do occur frequently in the text of decisions.

Types of natural features:

The kinds of features that have been named in Antarctica have been roughly grouped in three categories – first-order, second-order, and third-order based on size and prominence (see appendix for examples).

From the early days of the heroic era of exploration through the first few decades of broad international activity guided by the Antarctic Treaty, most of the large and prominent features have been named. The names of prominent explorers or sponsoring organizations of expeditions or prominent scientists have been applied to many of the largest features. In effect, all first-order features, as well as the vast majority of second-order features and many third-order features, have been named. Names continue to be applied to unnamed features (generally third-order features) as dictated by needs of science and operations or when appropriate as commemorative actions.

Personal and non-personal names:

Geographic names of features can be divided into two broad categories: 1) personal names that honor individuals for their accomplishments, and 2) non-personal names that could be descriptive in nature or tied to literature or mythology, or that recognize organizations, institutions, or platforms to study the Antarctic (e.g. ships, aircraft, robotic and/or autonomous vehicles, and satellite systems), or that recognize or commemorate some prior event that is significant to Antarctica.

Application of commemorative or personal names to Antarctic features:

Geographic nomenclature in Antarctica is unique in the world for several reasons. There is no indigenous population and hence no history of cultural ties to geography; human presence has a relatively short history, and is, at many scales, temporary. There is also no sovereign territory and instead the region is managed under the Antarctic Treaty, whereby territorial claims are held in abeyance. Even permanent research stations are populated with temporary residents who are there for specific work assignments.

Despite the short history, however, increasing numbers of people travel to Antarctica each year. The U.S. Antarctic Program alone supports more than 3,000 deployments each year. Over the past several decades many countries have initiated national Antarctic programs of their own or increased the tempo of their existing programs such that the total number of participants for all national Antarctic programs is probably about 5,000 annually, involving more than 25 countries. In addition, the emergence of eco-tourism has resulted in large numbers of people visiting Antarctica – more than 45,000 tourists visited Antarctica in the 2007-2008 season (a peak year) but the estimate for an average austral summer season is in excess of 30,000 visitors.

Despite these unusual characteristics, application of names to geographic features is an inherently human need, deriving from our desire to make a landscape familiar so that our place-based activities can be conducted more efficiently. Antarctica is no exception and so there is a legitimate need for mechanisms to propose, review and approve names of geographic features. Mariners made early discoveries of some coastal areas of Antarctica in the 18th and 19th centuries, while conducting voyages of discovery or exploitation, such as sealing or whaling. The heroic era of exploration of the Antarctic interior began little more than a century ago with the expeditions of Scott, Shackleton, Amundsen, and others. Except for interruptions during the two World Wars, exploration activity has been an increasing enterprise. Following the International Geophysical Year in the late 1950s, Antarctic exploration took a significant leap forward with several nations taking a strong interest in the region. Geographic names were applied at all these stages of exploration and so feature naming remains an important activity today as we continue to expand our place-based activities.

With regard to application of personal names, it is useful to consider the evolution of human activities in Antarctica as context for the current policy. In earlier phases of exploration, the physical and emotional challenges to humans working in Antarctica were quite substantial. Expeditions for discovery and scientific research would generally require that people be away from home without capabilities for personal communications for long periods of time – months at least, and often years. This was compounded by the hardships imposed by the harsh climate and the primitive expeditionary equipment and supplies. As such, merely participating successfully in these expeditions was often considered sufficient justification for the honor of having a geographic feature named for an individual. In contrast, modern expeditions have ready access to a wide array of communications technologies that fully facilitate both operational and personal communications. Modern equipment and supplies create work environments not unlike areas in the developed world. Transportation is vastly safer, quicker, and more comfortable in comparison with early expeditions. In summary, modern Antarctic work does not require the deprivations and hardships of the past.

Consequently, the honor of having a geographic feature named for individuals during this more modern era should now be based on some significant contribution that goes well beyond successfully carrying out one's job or successful participation in some Antarctic-related enterprise. The contribution can be a direct advancement of knowledge or a direct contribution to U.S. national interests in the Antarctic, or can be an indirect contribution, such as activities that advance U.S. policy or educational interests in the Antarctic, or a significant contribution to support research or operations in the Antarctic.

Future Considerations:

ACAN, in consultation with U.S. BGN, will periodically consider changes to the policy for naming geographic features in Antarctica. Such changes should be aligned with evolving U.S. national interests in Antarctica.

Appendix:

Types of natural features

The kinds of features that have been named in Antarctica have been roughly grouped into three categories – first-order, second-order, and third-order features. There is considerable latitude for judgment in classifying individual features, since geographic features represent a continuum in sizes and it is impractical to set fixed limits of sizes of "large glaciers," "great mountains," or "large bays."

1. First-order features
    a. Regions or "lands"
    b. Coasts
    c. Seas
    d. Extensive mountain ranges and plateaus
    e. Major subglacial basins, mountains, or plateaus
    f. Ice shelves
    g. Large glaciers

2. Second-order features
    a. Peninsulas
    b. Mountain ranges, except the most extensive
    c. Great or prominent mountains
    d. Glaciers, except the largest
    e. Prominent capes

f. Islands or ice rises
g. Gulfs
h. Large bays
i. Straits or passages
j. Harbors
k. Extensive reefs, shoals, or banks

3. Third-order features
    a. Minor mountains and hills
    b. Nunataks
    c. Cliffs
    d. Rocks
    e. Minor shore features
    f. Points
    g. Capes (except the greater or more prominent ones)
    h. Glaciers (except the greater or more prominent ones)
    i. Bays (except the greater or more prominent ones)
    j. Coves
    k. Anchorages
    l. Reefs, shoals, and banks of small extent
    m. Parts of larger features listed above