

## TABLE OF CONTENTS

List of Figures .....	xv
List of Tables .....	xvii
List of Abbreviations and Acronyms.....	xxi
Common Metric/British System Equivalents .....	xxiv
<b>1. Introduction and Purpose and Need for the Action .....</b>	<b>1–1</b>
1.1    Background .....	1–1
1.1.1    NASA Sounding Rocket Program Background.....	1–1
1.1.2    NASA Sounding Rocket Program Launch Sites .....	1–2
1.1.3    PFRR Background .....	1–2
1.1.4    Existing NASA SRP NEPA Documents and Context .....	1–2
1.1.5    Science Conducted by NASA SRP at PFRR .....	1–3
1.1.6    Cooperating Agency Actions.....	1–8
1.1.6.1    BLM .....	1–8
1.1.6.2    USFWS .....	1–10
1.1.6.3    Decisionmaking Context.....	1–10
1.2    Purpose.....	1–10
1.2.1    NASA (Lead Agency) Purpose Statement.....	1–10
1.2.2    BLM (Cooperating Agency) Purpose Statement .....	1–10
1.2.3    USFWS (Cooperating Agency) Purpose Statement .....	1–11
1.3    Need .....	1–11
1.3.1    NASA Need Statement .....	1–11
1.3.2    BLM and USFWS Need Statement .....	1–12
1.4    Federal Scoping Activities To Date .....	1–12
1.4.1    Pre-EIS Scoping .....	1–13
1.4.2    EIS Scoping .....	1–17
1.5    NASA’s Future Use of This EIS.....	1–20
<b>2. Description and Comparison of Alternatives.....</b>	<b>2–1</b>
2.1    Poker Flat Research Range .....	2–1
2.1.1    PFRR Launch History.....	2–3
2.1.2    Future NASA Launches.....	2–7
2.1.2.1    Launch Vehicles.....	2–7
2.1.2.2    Payload Hardware and Experiments .....	2–11
2.1.2.3    Launch Frequency.....	2–13
2.1.2.4    Launch Season .....	2–14
2.1.3    PFRR Launch and Support Facilities.....	2–14

2.1.4	Downrange Support Facilities.....	2-19
2.1.5	Launch Corridor and Flight Zones.....	2-20
2.1.6	Launch Area Operations .....	2-21
2.1.6.1	Range Safety .....	2-24
2.1.6.2	Dispersion in Impact Locations .....	2-28
2.1.7	Landing and Recovery Operations .....	2-29
2.1.7.1	Landing Locations.....	2-29
2.1.7.2	Search and Recovery Operations .....	2-32
2.2	Selection of Reasonable Alternatives .....	2-45
2.2.1	Siting Alternatives .....	2-45
2.2.2	Future Launch and Recovery Options at PFRR.....	2-46
2.2.2.1	Future Launch and Recovery Option 1: Continue with Past Practices, No Change .....	2-47
2.2.2.2	Future Launch and Recovery Option 2: Enhanced Efforts to Locate and Recover Newly Expended Stages and Payloads with Environmentally Sensitive Cleanup .....	2-47
2.2.2.3	Future Launch and Recovery Option 3: Restriction of Trajectories and Impact Locations with Environmentally Sensitive Cleanup.....	2-47
2.2.2.4	Future Launch and Recovery Option 4: Enhanced Efforts to Locate and Recover Newly Expended Stages and Payloads with Maximum Cleanup .....	2-47
2.2.2.5	Future Launch and Recovery Option 5: Restriction of Trajectories and Impact Locations with Maximum Cleanup .....	2-48
2.2.3	Options for Recovery of Existing Flight Hardware.....	2-48
2.2.3.1	Existing Hardware Recovery Option 1: Continue with Past Practices, No Change .....	2-48
2.2.3.2	Existing Hardware Recovery Option 2: Environmentally Sensitive Cleanup.....	2-48
2.2.3.3	Existing Hardware Recovery Option 3: Maximum Cleanup .....	2-49
2.3	Alternatives Evaluated in this Environmental Impact Statement .....	2-49
2.3.1	Details Common to All Alternatives .....	2-49
2.3.2	No Action Alternative – Continue NASA SRP at PFRR in its Present Form and at the Current Level of Effort .....	2-50
2.3.3	Alternative 1 – Continue NASA SRP Activities and Flights at PFRR within Existing Flight Zones, with Environmental Screening for Recovery of New and Existing NASA Stages and Payloads (Environmentally Responsible Search and Recovery Alternative) .....	2-50
2.3.4	Proposed Draft Recovery Plan.....	2-51

2.3.5	Alternative 2 – Continue NASA SRP Activities and Flights at PFRR within Existing Flight Zones with Maximum Removal of Spent Stages and Payloads (Maximum Cleanup Search and Recovery Alternative).....	2–59
2.3.6	Alternative 3 – Continue NASA SRP Activities and Flights at PFRR with Restricted Trajectories to Reduce Impacts on Designated Environmentally Sensitive Areas, (Environmentally Responsible Search and Recovery Alternative with Restricted Trajectories) .....	2–60
2.3.7	Alternative 4 – Continue NASA SRP Activities and Flights at PFRR with Restricted Trajectories to Reduce Impacts on Designated Environmentally Sensitive Areas, (Maximum Cleanup Search and Recovery Alternative with Restricted Trajectories).....	2–61
2.4	Alternatives Considered But Dismissed From Detailed Study .....	2–61
2.4.1	Cease NASA SRP Activities and Flights at PFRR.....	2–62
2.4.2	Launch from Other Sites in the United States .....	2–62
2.4.3	Conduct a Subset of Launches at Other High-Latitude Launch Sites, Thereby Avoiding Federally Managed Lands.....	2–63
2.4.4	Use Alternative Platforms for Research and Technology Validation....	2–63
2.4.5	Installation of a Recovery System on All Future Missions .....	2–64
2.4.6	Adoption of Numerical Risk Criteria for Specially Designated Environmental Features .....	2–66
2.4.7	Launching Easterly into Canada .....	2–69
2.4.8	Track all Future Stages and Payloads .....	2–70
2.4.8.1	Limiting the Configurations of Rockets Launched.....	2–70
2.4.8.2	Installation of Additional Tracking Equipment .....	2–70
2.5	Summary Comparison of the Alternatives.....	2–73
3.	<b>Description of the Affected Environment.....</b>	<b>3–1</b>
3.1	Air Quality and Climate.....	3–1
3.1.1	Air Quality .....	3–1
3.1.2	Climate.....	3–4
3.1.2.1	Southern Poker Flat Research Range Launch Corridor Climate Regime.....	3–4
3.1.2.2	Central Poker Flat Research Range Launch Corridor Climate Regime.....	3–8
3.1.2.3	Northern Poker Flat Research Range Launch Corridor Climate Regime.....	3–9
3.1.2.4	Global Climate .....	3–9
3.2	Ecoregions.....	3–10
3.2.1	Beaufort Sea Ecoregion .....	3–10

3.2.2	Arctic Coastal Plain Ecoregion .....	3–10
3.2.3	Arctic Foothills Ecoregion .....	3–13
3.2.4	Brooks Range Ecoregion .....	3–13
3.2.5	Interior Forested Lowlands and Uplands Ecoregion .....	3–13
3.2.6	Interior Highlands Ecoregion.....	3–13
3.2.7	Yukon Flats Ecoregion .....	3–13
3.3	Water Resources .....	3–14
3.3.1	Wetlands, Floodplains and Coastal Zone.....	3–14
3.3.2	Wild and Scenic Rivers.....	3–15
3.3.3	Water Quality.....	3–17
3.3.4	Ecoregions .....	3–18
3.3.4.1	Beaufort Sea Ecoregion .....	3–19
3.3.4.2	Arctic Coastal Plain Ecoregion .....	3–20
3.3.4.3	Arctic Foothills Ecoregion .....	3–21
3.3.4.4	Brooks Range Ecoregion .....	3–21
3.3.4.5	Interior Forested Lowlands and Uplands Ecoregion.....	3–22
3.3.4.6	Interior Highlands Ecoregion.....	3–22
3.3.4.7	Yukon Flats Ecoregion.....	3–22
3.4	Geology and Soils .....	3–23
3.4.1	Permafrost .....	3–23
3.4.2	Volcanoes.....	3–26
3.4.3	Glaciers .....	3–26
3.4.4	Soil Orders .....	3–27
3.4.5	Ecoregions .....	3–27
3.4.5.1	Arctic Coastal Plain Ecoregion .....	3–27
3.4.5.2	Arctic Foothills Ecoregion .....	3–28
3.4.5.3	Brooks Range Ecoregion .....	3–29
3.4.5.4	Interior Forested Lowlands and Uplands Ecoregion.....	3–29
3.4.5.5	Interior Highlands Ecoregion.....	3–29
3.4.5.6	Yukon Flats Ecoregion.....	3–30
3.5	Noise .....	3–30
3.6	Visual Resources.....	3–33
3.6.1	Poker Flat Research Range Launch Site .....	3–34
3.6.2	Poker Flat Research Range Launch Corridor .....	3–34
3.6.2.1	White Mountains National Recreation Area .....	3–34
3.6.2.2	Steeese National Conservation Area.....	3–34
3.6.2.3	Arctic National Wildlife Refuge .....	3–35
3.6.2.4	Yukon National Wildlife Refuge .....	3–35

3.7	Ecological Resources .....	3–36
3.7.1	Vegetation .....	3–36
3.7.2	Wildlife .....	3–38
3.7.2.1	Terrestrial Mammals .....	3–38
3.7.2.2	Marine Mammals .....	3–43
3.7.2.3	Birds .....	3–45
3.7.2.4	Fish.....	3–48
3.7.2.5	Fishery Management Plans and Essential Fish Habitat .....	3–49
3.7.2.6	Subsistence Fisheries .....	3–50
3.7.2.7	Listed, Proposed, and Candidate Species under the U.S. Endangered Species Act.....	3–50
3.7.2.8	Endangered Species, Species of Special Concern, and Fish Stocks of Concern Recognized by the Alaska Department of Fish and Game .....	3–56
3.7.2.9	Sensitive Species Recognized by the Bureau of Land Management.....	3–56
3.8	Land Use and Recreation .....	3–58
3.8.1	Poker Flat Research Range Launch Site.....	3–58
3.8.2	Poker Flat Research Range Launch Corridor .....	3–58
3.8.2.1	White Mountains National Recreation Area .....	3–59
3.8.2.2	Steese National Conservation Area.....	3–60
3.8.2.3	Arctic National Wildlife Refuge .....	3–61
3.8.2.4	Yukon Flats National Wildlife Refuge .....	3–62
3.8.2.5	Alaska State Lands .....	3–63
3.8.2.6	Alaska Native Land Holdings .....	3–63
3.9	Cultural Resources .....	3–64
3.9.1	Regulatory Setting .....	3–64
3.9.2	Historic Background .....	3–65
3.9.3	Existing Conditions.....	3–67
3.9.3.1	National Register of Historic Places .....	3–68
3.9.3.2	Archaeological Sites .....	3–68
3.9.3.3	Structural Resources .....	3–68
3.9.3.4	Native Villages.....	3–69
3.9.3.5	Properties of Traditional or Religious Cultural Importance .....	3–73
3.10	Subsistence Use Resources .....	3–73
3.11	Transportation .....	3–81
3.12	Waste Management.....	3–82
3.12.1	Hazardous Waste Generation and Storage.....	3–84

3.12.2	Hazardous Materials Used in Rocket Launches .....	3–84
3.12.3	Existing Stages and Payloads within the Poker Flat Research Range Launch Corridor.....	3–85
3.12.4	Waste Treatment and Disposal Practices .....	3–85
3.13	Health and Safety .....	3–86
3.13.1	Occupational Health and Safety at Poker Flat Research Range .....	3–86
3.13.2	Public Health and Safety Within Poker Flat Research Range Launch Corridor.....	3–86
3.13.3	Poker Flat Research Range Safety Process.....	3–87
3.13.4	NASA Sounding Rocket Program at Poker Flat Research Range Accident History .....	3–88
3.13.4.1	Poker Flat Research Range Occupational Injuries.....	3–88
3.13.4.2	NASA Sounding Rocket Program at Poker Flat Research Range Rocket Failures .....	3–88
3.14	Socioeconomics and Environmental Justice .....	3–89
3.14.1	Population and Housing.....	3–90
3.14.2	Regional Economic Characteristics .....	3–91
3.14.3	Environmental Justice.....	3–91
3.14.3.1	Potentially Affected Communities.....	3–92
<b>4.</b>	<b>Environmental Consequences.....</b>	<b>4–1</b>
4.1	Air Quality .....	4–6
4.1.1	Methodology .....	4–6
4.1.2	No Action Alternative .....	4–8
4.1.2.1	Launch Operations .....	4–8
4.1.3	Alternative 1 – Environmentally Responsible Search and Recovery .....	4–9
4.1.3.1	Launch Operations .....	4–9
4.1.3.2	Search and Recovery.....	4–9
4.1.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–10
4.1.4.1	Launch Operations .....	4–10
4.1.4.2	Search and Recovery.....	4–10
4.1.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–11
4.1.5.1	Launch Operations .....	4–11
4.1.5.2	Search and Recovery.....	4–11
4.1.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–12
4.1.6.1	Launch Operations .....	4–12
4.1.6.2	Search and Recovery.....	4–12

4.1.7	Summer Launches.....	4–12
4.2	Global Atmosphere .....	4–12
4.2.1	Methodology.....	4–12
4.2.2	No Action Alternative.....	4–13
4.2.2.1	Lower Atmosphere.....	4–13
4.2.2.2	Upper Atmosphere .....	4–16
4.2.2.3	Climate Change.....	4–19
4.2.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4–19
4.2.3.1	Lower Atmosphere.....	4–19
4.2.3.2	Upper Atmosphere .....	4–19
4.2.3.3	Climate Change.....	4–20
4.2.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–20
4.2.4.1	Lower Atmosphere.....	4–20
4.2.4.2	Upper Atmosphere .....	4–20
4.2.4.3	Climate Change.....	4–21
4.2.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–21
4.2.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–21
4.2.7	Summer Launches.....	4–21
4.3	Water Resources .....	4–22
4.3.1	Methodology.....	4–22
4.3.2	No Action Alternative.....	4–24
4.3.2.1	Surface Water.....	4–24
4.3.2.2	Groundwater.....	4–30
4.3.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4–31
4.3.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–31
4.3.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–31
4.3.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–31
4.3.7	Summer Launches.....	4–31
4.4	Geology and Soils .....	4–32
4.4.1	Methodology .....	4–32
4.4.2	No Action Alternative.....	4–33
4.4.2.1	Launch Operations .....	4–34
4.4.2.2	Flight Hardware .....	4–34
4.4.2.3	Search and Recovery.....	4–36
4.4.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4–36

4.4.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–36
4.4.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–36
4.4.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–37
4.4.7	Summer Launches.....	4–37
4.5	Noise .....	4–37
4.5.1	Methodology.....	4–37
4.5.2	No Action Alternative.....	4–39
4.5.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4–42
4.5.3.1	Launch Operations .....	4–42
4.5.3.2	Search and Recovery.....	4–42
4.5.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–43
4.5.4.1	Launch Operations .....	4–43
4.5.4.2	Search and Recovery.....	4–43
4.5.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–43
4.5.5.1	Launch Operations .....	4–43
4.5.5.2	Search and Recovery.....	4–43
4.5.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–44
4.5.6.1	Launch Operations .....	4–44
4.5.6.2	Search and Recovery.....	4–44
4.5.7	Summer Launches.....	4–44
4.6	Visual Resources.....	4–44
4.6.1	Methodology .....	4–44
4.6.2	No Action Alternative.....	4–45
4.6.2.1	Launch Operations .....	4–45
4.6.2.2	Search and Recovery.....	4–47
4.6.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4–49
4.6.3.1	Launch Operations .....	4–49
4.6.3.2	Search and Recovery.....	4–49
4.6.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–49
4.6.4.1	Launch Operations .....	4–49
4.6.4.2	Search and Recovery.....	4–50
4.6.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–50
4.6.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–50

4.6.7	Summer Launches.....	4–50
4.7	Ecological Resources .....	4–51
4.7.1	Methodology.....	4–51
4.7.2	Applicable Permit Conditions.....	4–52
4.7.3	Vegetation .....	4–54
4.7.3.1	No Action Alternative.....	4–54
4.7.3.2	Alternative 1 – Environmentally Responsible Search and Recovery .....	4–55
4.7.3.3	Alternative 2 – Maximum Cleanup Search and Recovery....	4–56
4.7.3.4	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–56
4.7.3.5	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–56
4.7.4	Wildlife .....	4–57
4.7.4.1	No Action Alternative .....	4–57
4.7.4.2	Alternative 1 – Environmentally Responsible Search and Recovery .....	4–62
4.7.4.3	Alternative 2 – Maximum Cleanup Search and Recovery....	4–62
4.7.4.4	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–62
4.7.4.5	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–63
4.7.5	Fisheries Management Plans, Essential Fish Habitat, and Subsistence Fisheries .....	4–63
4.7.6	Endangered, Threatened, and Special Status Species .....	4–63
4.7.6.1	Ringed Seal .....	4–64
4.7.6.2	Polar Bear.....	4–67
4.7.6.3	Spectacled Eider.....	4–70
4.7.6.4	Steller’s Eider.....	4–70
4.7.7	Endangered Species Act Compliance .....	4–70
4.7.8	Summer Launches.....	4–71
4.7.8.1	Vegetation .....	4–71
4.7.8.2	Wildlife .....	4–72
4.7.8.3	Fisheries Management Plans, Essential Fish Habitat, and Subsistence Fisheries .....	4–72
4.7.8.4	Endangered, Threatened, and Special Status Species .....	4–72
4.8	Land Use and Recreation.....	4–73
4.8.1	Methodology.....	4–73

4.8.2	No Action Alternative.....	4-74
4.8.2.1	Land Use .....	4-75
4.8.2.2	Recreation .....	4-79
4.8.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4-82
4.8.3.1	Land Use .....	4-83
4.8.3.2	Recreation .....	4-83
4.8.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4-84
4.8.4.1	Land Use .....	4-85
4.8.4.2	Recreation .....	4-85
4.8.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4-86
4.8.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4-87
4.8.7	Summer Launches.....	4-87
4.9	Cultural Resources .....	4-87
4.9.1	Methodology .....	4-87
4.9.2	No Action Alternative.....	4-88
4.9.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4-89
4.9.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4-89
4.9.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4-89
4.9.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4-90
4.9.7	Summer Launches.....	4-90
4.10	Subsistence Use Resources .....	4-90
4.10.1	Methodology .....	4-90
4.10.2	No Action Alternative.....	4-91
4.10.2.1	Launch Operations .....	4-91
4.10.2.2	Search and Recovery.....	4-92
4.10.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4-93
4.10.3.1	Launch Operations .....	4-93
4.10.3.2	Search and Recovery.....	4-93
4.10.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4-94
4.10.4.1	Launch Operations .....	4-94
4.10.4.2	Search and Recovery.....	4-94
4.10.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4-94
4.10.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4-94

4.10.7	Summer Launches.....	4-95
4.11	Transportation .....	4-95
4.11.1	Methodology.....	4-95
4.11.2	No Action Alternative.....	4-96
4.11.2.1	Launch Operations .....	4-96
4.11.2.2	Search and Recovery.....	4-97
4.11.2.3	Total Impacts.....	4-97
4.11.3	Alternative 1 – Environmentally Responsible Search and Recovery ....	4-97
4.11.3.1	Launch Operations .....	4-97
4.11.3.2	Search and Recovery.....	4-98
4.11.3.3	Total Impacts.....	4-98
4.11.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4-98
4.11.4.1	Launch Operations .....	4-98
4.11.4.2	Search and Recovery.....	4-98
4.11.4.3	Total Impacts.....	4-99
4.11.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4-99
4.11.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4-99
4.11.7	Summer Launches.....	4-99
4.12	Waste Management.....	4-99
4.12.1	Methodology.....	4-100
4.12.2	No Action Alternative.....	4-101
4.12.2.1	Launch Operations .....	4-101
4.12.2.2	Search and Recovery.....	4-109
4.12.3	Alternative 1 – Environmentally Responsible Search and Recovery ..	4-109
4.12.3.1	Launch Operations .....	4-109
4.12.3.2	Recovery of Newly Launched Payloads and Stages .....	4-109
4.12.3.3	Recovery of Existing Payloads and Stages .....	4-110
4.12.3.4	Waste Treatment and Disposal Practices .....	4-112
4.12.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4-113
4.12.4.1	Waste Treatment and Disposal Practices .....	4-113
4.12.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4-113
4.12.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4-114
4.12.7	Summary of the Alternatives .....	4-114
4.12.8	Summer Launches.....	4-117

4.13	Health and Safety .....	4–117
4.13.1	Methodology .....	4–117
4.13.1.1	Launch Operations – Worker Health and Safety .....	4–117
4.13.1.2	Launch Operations – Public Health and Safety .....	4–118
4.13.1.3	Search and Recovery – Worker Health and Safety .....	4–119
4.13.1.4	Search and Recovery – Public Health and Safety .....	4–119
4.13.2	No Action Alternative.....	4–120
4.13.2.1	Rocket Launch Worker Health and Safety .....	4–120
4.13.2.2	Rocket Launch Public Risks .....	4–120
4.13.2.3	Annual Impacts .....	4–124
4.13.2.4	Search and Recovery – Worker Health and Safety .....	4–127
4.13.2.5	Search and Recovery – Failed Payloads and Stages .....	4–128
4.13.2.6	Annual Worker Health and Safety Impacts .....	4–129
4.13.3	Alternative 1 – Environmentally Responsible Search and Recovery ..	4–129
4.13.3.1	Rocket Launch Health and Safety .....	4–129
4.13.3.2	Search and Recovery – Health and Safety .....	4–129
4.13.4	Alternative 2 – Maximum Cleanup Search and Recovery.....	4–129
4.13.4.1	Rocket Launch Health and Safety .....	4–129
4.13.4.2	Search and Recovery –Health and Safety .....	4–130
4.13.5	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–130
4.13.6	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–130
4.13.7	Summary of the Alternatives .....	4–130
4.13.8	Summer Launches.....	4–132
4.14	Socioeconomics and Environmental Justice .....	4–133
4.14.1	Socioeconomics .....	4–133
4.14.1.1	No Action Alternative .....	4–134
4.14.1.2	Alternative 1 – Environmentally Responsible Search and Recovery .....	4–135
4.14.1.3	Alternative 2 – Maximum Cleanup Search and Recovery..	4–135
4.14.1.4	Alternative 3 – Environmentally Responsible Search and Recovery with Restricted Trajectories .....	4–136
4.14.1.5	Alternative 4 – Maximum Cleanup Search and Recovery with Restricted Trajectories .....	4–136
4.14.2	Summer Launches.....	4–136
4.14.3	Environmental Justice .....	4–136
4.15	Cumulative Effects.....	4–138
4.15.1	Geographic Extent of Cumulative Effects Analysis .....	4–138

4.15.2	Temporal Extent of Cumulative Effects Analysis .....	4–138
4.15.3	Specific Actions Within the Poker Flat Research Range Launch Corridor.....	4–138
4.15.3.1	Poker Flat Research Range Past Launches 1968–Present... 4–140	
4.15.3.2	Eastern Interior Resource Management Plan.....	4–140
4.15.3.3	Interior Oil and Gas Exploration.....	4–140
4.15.3.4	Chandalar Mining District .....	4–141
4.15.3.5	Burnt Mountain Seismic Observatory.....	4–141
4.15.3.6	Arctic National Wildlife Refuge Revised Comprehensive Conservation Plan .....	4–141
4.15.3.7	State of Alaska Sale of North Slope Leases.....	4–142
4.15.3.8	Long-Range Transportation Plan .....	4–142
4.15.3.9	Polar Bear Conservation Plan .....	4–142
4.15.3.10	Barter Island Airport Improvement Project .....	4–142
4.15.3.11	Barter Island Distant Early Warning-Line Cleanup.....	4–143
4.15.3.12	Beaufort Sea Planning Area .....	4–143
4.15.4	Specific Actions Outside of the Poker Flat Research Range Launch Corridor.....	4–143
4.15.4.1	Gold Mining at Livengood.....	4–143
4.15.4.2	Dalton Highway Scenic Partnership Plan .....	4–144
4.15.4.3	Foothills West Transportation Access Project .....	4–144
4.15.4.4	Alaska Pipeline Project .....	4–144
4.15.5	General Actions Considered for Cumulative Effects.....	4–144
4.15.5.1	Land Management, Research, and Monitoring .....	4–144
4.15.5.2	Recreational Use .....	4–145
4.15.5.3	Placer Mining .....	4–145
4.15.6	Methodology .....	4–145
4.15.6.1	Overview .....	4–145
4.15.6.2	Unavailable Information .....	4–145
4.15.6.3	Actions Considered but not Evaluated in Detail .....	4–146
4.15.6.4	Resources Considered but not Evaluated in Detail .....	4–146
4.15.7	Air Quality and Global Atmosphere .....	4–147
4.15.7.1	Resource Context .....	4–147
4.15.7.2	Past and Present Impacts .....	4–147
4.15.7.3	Future Impacts.....	4–148
4.15.7.4	Differences Among Alternatives Under Consideration .....	4–148
4.15.8	Land Use and Recreation .....	4–149
4.15.8.1	Resource Context .....	4–149

4.15.8.2	Past and Present Impacts .....	4–149
4.15.8.3	Future Impacts.....	4–152
4.15.8.4	Differences Among Alternatives Under Consideration .....	4–156
4.15.9	Visual Resources.....	4–157
4.15.9.1	Resource Context .....	4–157
4.15.9.2	Past and Present Impacts .....	4–157
4.15.9.3	Future Impacts.....	4–158
4.15.9.4	Differences Among Alternatives Under Consideration .....	4–159
4.15.10	Water Resources .....	4–159
4.15.10.1	Resource Context .....	4–159
4.15.10.2	Past and Present Impacts .....	4–159
4.15.10.3	Future Impacts.....	4–162
4.15.10.4	Differences Among Alternatives Under Consideration .....	4–164
4.15.11	Ecological Resources .....	4–165
4.15.11.1	Resource Context .....	4–165
4.15.11.2	Past and Present Impacts .....	4–165
4.15.11.3	Future Impacts.....	4–165
4.15.11.4	Differences Among Alternatives Under Consideration .....	4–166
4.15.12	Waste .....	4–167
4.15.12.1	Past and Present Impacts .....	4–167
4.15.12.2	Future Impacts.....	4–172
4.15.12.3	Differences Among Alternatives Under Consideration .....	4–174
4.15.13	Noise .....	4–175
4.15.13.1	Resource Context .....	4–175
4.15.13.2	Past and Present Impacts .....	4–176
4.15.13.3	Future Impacts.....	4–176
4.15.13.4	Differences Among Alternatives Under Consideration .....	4–177
4.15.14	Transportation .....	4–177
4.15.14.1	Resource Context .....	4–177
4.15.14.2	Past and Present Impacts .....	4–178
4.15.14.3	Future Impacts.....	4–178
4.15.14.4	Differences Among Alternatives Under Consideration .....	4–179
4.16	The Relationship Between the Short-Term Uses and Long-Term Maintenance and Enhancement of the Environment.....	4–179
4.17	Irreversible and Irrecoverable Commitments of Resources .....	4–180
4.18	Summary of Mitigation Measures .....	4–181

<b>5.</b>	<b>Agencies, Organizations, and Persons Consulted .....</b>	<b>5–1</b>
<b>6.</b>	<b>List of Preparers .....</b>	<b>6–1</b>
<b>7.</b>	<b>Index.....</b>	<b>7–1</b>
<b>8.</b>	<b>Glossary .....</b>	<b>8–1</b>
<b>9.</b>	<b>References.....</b>	<b>9–1</b>

## LIST OF FIGURES

Figure 1–1.	Aurora Borealis over Poker Flat Research Range .....	1–4
Figure 1–2.	Sun with Earth Protective Magnetic Field .....	1–5
Figure 1–3.	Poker Flat Research Range Launch Corridors.....	1–9
Figure 2–1.	Poker Flat Research Range Vicinity Map.....	2–2
Figure 2–2.	Representative Launch Vehicles, Ranging From a Single-Stage Orion to a Four-Stage Black Brant XII .....	2–5
Figure 2–3.	Sounding Rockets Launched by NASA from Poker Flat Research Range by Fiscal Year .....	2–6
Figure 2–4.	Numbers of Sounding Rocket Program Launches per Month .....	2–6
Figure 2–5.	Non-NASA Sounding Rocket Launches from PFRR .....	2–7
Figure 2–6.	Terrier-Improved Orion Configuration.....	2–8
Figure 2–7.	Terrier-Improved Orion Launch Vehicle.....	2–9
Figure 2–8.	Black Brant XII Configuration .....	2–9
Figure 2–9.	Black Brant XII Launch Vehicle .....	2–10
Figure 2–10.	Typical Sounding Rockets Payload with Nose Cone .....	2–11
Figure 2–11.	Typical Sounding Rockets Payload Without Nose Cone .....	2–12
Figure 2–12.	Poker Flat Research Range Areas.....	2–14
Figure 2–13.	Payload Assembly.....	2–15
Figure 2–14.	Payload Assembly Building.....	2–15
Figure 2–15.	Rocket Assembly Area .....	2–16
Figure 2–16.	Rocket Storage Facility .....	2–16
Figure 2–17.	Poker Flat Research Range Launch Area Facilities.....	2–17
Figure 2–18.	Poker Flat Research Range Launch Vicinity .....	2–17
Figure 2–19.	Poker Flat Research Range Launch Pads.....	2–18
Figure 2–20.	Launch Pad No. 4 with Retracted Environmental Shelter .....	2–18
Figure 2–21.	Downrange Observatories at Fort Yukon (left) and Kaktovik (right) .....	2–20
Figure 2–22.	Poker Flat Research Range Flight Zones .....	2–20
Figure 2–23.	NASA Sounding Rockets Program Programmatic Actions Flow Chart, Sheet 1.....	2–22

Figure 2–24.	Launching a GPS Radiosonde Balloon from PFRR .....	2–26
Figure 2–25.	View of the February 2012 Powell Mission Second-Stage Impact from a Search Aircraft .....	2–33
Figure 2–26.	View of the February 2011 Bailey Mission Payload Parachute from a Search Aircraft .....	2–34
Figure 2–27.	Zoomed-in View of the Bailey Mission Payload Parachute from a Search Aircraft .....	2–34
Figure 2–28.	Picture of January 2011 Green Mission Black Brant Rocket Motor from Hovering Helicopter.....	2–35
Figure 2–29.	Photos Provided by Members of the Public During the Preliminary 2010 EA Scoping Process of Sounding Rocket Remains near Wind River ....	2–35
Figure 2–30.	View of Stages as Found in Downrange Lands .....	2–36
Figure 2–31.	Return of the April 2011 Brodell Mission Payload to PFRR .....	2–42
Figure 2–32.	View of the February 2011 Bailey Mission Stage Recovery.....	2–43
Figure 2–33.	Typical Hand Tools Employed for Hardware Removal .....	2–43
Figure 2–34.	Example of Substantially Embedded Rocket Motor.....	2–44
Figure 2–35.	Strobe and Streamer Combination Used on April 2011 Brodell Mission .....	2–53
Figure 2–36.	Post-Launch Search Process Flow Chart .....	2–55
Figure 2–37.	Recovery Process Flow Diagram.....	2–57
Figure 2–38.	Example of a Deeply Buried Rocket Motor in a Wetland/Bog Area .....	2–60
Figure 2–39.	Effects of a Recovery System on a Recent Black Brant IX Trajectory .....	2–65
Figure 2–40.	Effects of a Recovery System on a Recent Terrier-Improved Orion Trajectory .....	2–65
Figure 2–41.	Effects of Adopting a 1:1,000 Risk Criterion for Wilderness Areas .....	2–68
Figure 2–42.	Effects of Adopting a 1:100 Risk Criterion for Wilderness Areas .....	2–68
Figure 2–43.	Effects of Adopting a 1:1,000 Risk Criterion for Wild River Corridors .....	2–69
Figure 2–44.	Effects of Adopting a 1:100 Risk Criterion for Wild River Corridors .....	2–69
Figure 2–45.	Tripod-type mobile radar (shown on an elevated platform) .....	2–71
Figure 3–1.	Climate Stations Located in or Near the Poker Flat Research Range Launch Corridor .....	3–5
Figure 3–2.	Poker Flat Research Range Ecoregions .....	3–12
Figure 3–3.	Poker Flat Research Range Permafrost.....	3–25
Figure 3–4.	Central Arctic, Porcupine, and White Mountains Caribou Herd Distribution .....	3–40
Figure 3–5.	Distribution of Muskoxen, Moose, and Dall Sheep Within the Poker Flat Research Range.....	3–41
Figure 3–6.	Waterfowl and Shorebird Bird Congregation Areas Within Arctic and Yukon Flats National Wildlife Refuges.....	3–47

Figure 3–7.	Designated Critical Habitat for Polar Bears, Showing PFRR Launch Zones and Predicted Impact Points for Past PFRR Launches Between 1994 and 2010.....	3–53
Figure 3–8.	Poker Flat Research Range Game Management Units Ecoregions .....	3–80
Figure 3–9.	Major Roadways and Airports in or Near the Poker Flat Research Range Launch Corridor Area .....	3–83
Figure 4–1.	Typical Landing Areas Established for Analysis of Impacts.....	4–5
Figure 4–2.	Emissions along a Representative Terrier-Improved Orion Trajectory.....	4–14
Figure 4–3.	Emissions along a Representative Black Brant XII Trajectory .....	4–15
Figure 4–4.	Impact Site of Non-Ignited Black Brant V from March 2005 .....	4–27
Figure 4–5.	Impact Site of Failed Terrier-Improved Orion from March 2003 .....	4–28
Figure 4–6.	Sounding Rocket Launch at Poker Flat Research Range.....	4–45
Figure 4–7.	Spent Stage Within Poker Flat Research Range Launch Corridor .....	4–46
Figure 4–8.	Aerial View of a Payload Within Poker Flat Research Range Launch Corridor.....	4–46
Figure 4–9.	Payload Within Poker Flat Research Range Launch Corridor .....	4–47
Figure 4–10.	Aerial View of a Payload with Parachute Deployed .....	4–48
Figure 4–11.	Higher Altitude of Aerial View of a Payload with a Parachute Deployed .....	4–48
Figure 4–12.	Likelihood of a Spent Stage or Payload Landing Within Polar Bear Critical Habitat.....	4–68
Figure 4–13.	Typical Landing Locations Within U.S. Bureau of Land Management Lands.....	4–76
Figure 4–14.	Typical Rocket Motor Ignition Battery Pack.....	4–102
Figure 4–15.	Typical Payload Battery Configuration .....	4–103
Figure 4–16.	Typical 43-Centimeter-Diameter (17-Inch-Diameter) Payload High Pressure Tank Configuration .....	4–106
Figure 4–17.	GPS Weathersonde Internal Parts; A: Antenna; P: Lithium Battery; Tx: Transmitter; U: Humidity Sensor; GPS: GPS Antenna (photo courtesy Lockheed Martin/Sippican) .....	4–108
Figure 4–18.	GPS Weathersonde Box.....	4–109
Figure 4–19.	Typical Black Brant XII Third-Stage Three-Sigma Dispersion Ellipse .....	4–123
Figure 4–20.	Activities Included Within Cumulative Effects Analysis .....	4–139
Figure 4–21.	Sounding Rockets Launched from PFRR Within Last 10 Years and Those That Would Have Been Excluded by Designation of Brooks Range WSA ...	4–155
Figure 4–22.	Meteorological Rocket Flown from PFRR in the 1970s (does not show booster) .....	4–169
Figure 4–23.	Typical Aluminum Foil “Chaff” Historically and Currently Flown During Countdown.....	4–170
Figure 4–24.	Radar Target Historically Flown During Countdown .....	4–170

## LIST OF TABLES

Table 1–1.	Science Provided by Selected PFRR Sounding Rocket Missions .....	1–7
Table 1–2.	NASA 2010 Environmental Assessment Scoping Comments Summary .....	1–13
Table 1–3.	PFRR EIS Scoping Comments Summary.....	1–18
Table 2–1.	Sounding Rockets Launched by NASA from Poker Flat Research Range .....	2–3
Table 2–2.	Rocket Characteristics of Past and Current NASA SRP Launches at PFRR ....	2–4
Table 2–3.	Measured Dispersion of Sounding Rockets Program Final-Stage Spent Rockets, 1986–1995.....	2–29
Table 2–4.	Short-Range First-Stage Rocket Motor Trajectories .....	2–30
Table 2–5.	Medium-Range Sounding Rockets Program Spent Second-Stage and 70-Millimeter Test Rocket Trajectories.....	2–30
Table 2–6.	Spent Final Stage Trajectories .....	2–31
Table 2–7.	General Location of NASA Sounding Rocket Motor Stages .....	2–31
Table 2–8.	General Location of Recovered NASA Sounding Rocket Payloads .....	2–32
Table 2–9.	Reported Sounding Rocket Hardware Since Interim “Clean Range Policy” ...	2–40
Table 2–10.	Downrange Tracking Assets and Associated Costs for Tracking Multiple Sounding Rocket Items at PFRR .....	2–72
Table 2–11.	Summary of the Features of the Proposed Alternatives.....	2–74
Table 2–12.	Summary of Potential Impacts by Alternative.....	2–75
Table 3–1.	Federal and State Ambient Air Quality Standards.....	3–2
Table 3–2.	Fairbanks North Star Borough Criteria Pollutant Emissions, 2008.....	3–3
Table 3–3.	Poker Flat Research Range Annual Emissions .....	3–4
Table 3–4.	Monthly Average Temperature, Precipitation, and Station Information at Climate Stations Located in or Near the Poker Flat Research Range Launch Corridor.....	3–6
Table 3–5.	Monthly Average Snow Depth for Climate Stations Located in or Near the Poker Flat Research Range Launch Corridor .....	3–7
Table 3–6.	Poker Flat Research Range Flight Zones and Associated Ecoregionsa.....	3–11
Table 3–7.	Poker Flat Research Range Wetlands .....	3–15
Table 3–8.	Poker Flat Research Range National Wild and Scenic River Segments .....	3–16
Table 3–9.	Poker Flat Research Range Water Quality .....	3–18
Table 3–10.	Poker Flat Research Range Permafrost.....	3–24
Table 3–11.	Poker Flat Research Range Soil Orders.....	3–27
Table 3–12.	U.S. Bureau of Land Management Visual Resources Classifications .....	3–33
Table 3–13.	Federally Listed, Proposed, and Candidate Species with the Potential to Occur Under the Poker Flat Research Range Launch Corridor.....	3–51
Table 3–14.	Lands Within Poker Flat Research Range Launch Corridor .....	3–59
Table 3–15.	Summary of History and Prehistory Periods of Interior and Northeastern Alaska .....	3–66

Table 3–16.	Villages Beneath or Near the Poker Flat Research Range Launch Corridor ....	3–69
Table 3–17.	Subsistence Activities in the Vicinity of the PFRR Launch Corridor .....	3–76
Table 3–18.	Spent Stages and Payloads Launched by NASA into the Poker Flat Research Range Launch Corridor.....	3–85
Table 3–19.	Rocket Failure History at Poker Flat Research Range.....	3–88
Table 3–20.	Demographic Composition of Fairbanks North Star Borough and the State of Alaska .....	3–90
Table 3–21.	Housing Characteristics of the Region of Influence and the State of Alaska ...	3–91
Table 3–22.	Population Characteristics of Potentially Impacted Alaska Native Communities, the Fairbanks North Star Borough, and the State of Alaska .....	3–92
Table 3–23.	Income Characteristics of the Potentially Affected Alaska Native Communities, the Fairbanks North Star Borough, and the State of Alaska .....	3–93
Table 4–1.	Evaluation Criteria for Analyzing Environmental Impacts .....	4–2
Table 4–2.	Black Brant XII Rocket Launch Air Pollutant Emissions .....	4–6
Table 4–3.	Terrier-Improved Orion Rocket Launch Air Pollutant Emissions.....	4–7
Table 4–4.	No Action Alternative Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Emissions .....	4–9
Table 4–5.	Alternative 1 Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Emissions .....	4–10
Table 4–6.	Alternative 2 Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Emissions .....	4–11
Table 4–7.	Poker Flat Research Range Projected Average Annual Lower Atmosphere (<10 kilometers) Rocket Exhaust Emissions for Sounding Rockets .....	4–16
Table 4–8.	Poker Flat Research Range Projected Average Annual Lower Atmosphere (<10 kilometers) Rocket Exhaust Emissions from Test Rockets.....	4–16
Table 4–9.	Poker Flat Research Range Projected Average Annual Upper Atmosphere (>10 kilometers) Rocket Exhaust Emissions for Sounding Rockets .....	4–17
Table 4–10.	No Action Alternative Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Carbon Dioxide Equivalent Emissions .....	4–19
Table 4–11.	Alternative 1 Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Carbon Dioxide Equivalent Emissions .....	4–20
Table 4–12.	Alternative 2 Estimated Annual Poker Flat Research Range Operation, Launch, and Search and Recovery Carbon Dioxide Equivalent Emissions .....	4–21
Table 4–13.	Evaluation Criteria for Analyzing Water Resource Impacts .....	4–22
Table 4–14.	Estimated Time to Reach 90 Percent Mass Loss of Perchlorate from Propellant Sample .....	4–28
Table 4–15.	Evaluation Criteria for Analyzing Soils Impacts .....	4–32
Table 4–16.	Far-Field Sound Levels Due to Sounding Rockets Program Rocket Launches .....	4–39

Table 4–17.	Typical Noise Levels at Ground Level Under Fixed-Wing Aircraft Operations (decibels A-weighted) .....	4–41
Table 4–18.	Typical Noise Levels at Ground Level Under Helicopter Operations (decibels A-weighted).....	4–41
Table 4–19.	Percentage and Number of Spent Stages and Payloads that Have Landed in Each Ecoregion, 1997–2011 .....	4–55
Table 4–20.	Likelihood of a Spent Stage or Payload Landing Within Polar Bear Critical Habitat.....	4–67
Table 4–21.	Summary of Endangered Species Act Determinations for Listed, Proposed, and Candidate Species Potentially Occurring Within PFRR Flight Corridor .....	4–71
Table 4–22.	Typical Payload and Stage Impact Points.....	4–74
Table 4–23.	Alternative 1 Projected Recovery Operations.....	4–82
Table 4–24.	Alternative 2 Projected Recovery Operations.....	4–85
Table 4–25.	Historical Launch Vehicles and Impact Weights.....	4–111
Table 4–26.	Average Existing Stage and Payload Weight per Recovery Area .....	4–112
Table 4–27.	Rinsate Volume Generated During Stage Cleaning Activities .....	4–113
Table 4–28.	Estimate of Launch Support Items Flown from PFRR During a Typical Launch Season .....	4–114
Table 4–29.	Possible Recovery Scenarios for Newly Launched Payloads and Stages (four launches per year) .....	4–115
Table 4–30.	Possible Existing Payload and Stage Weight Recovered per Alternative .....	4–116
Table 4–31.	Possible Annual Recovery of Stages and Payloads per Alternative (four launches per year) .....	4–117
Table 4–32.	Description of Intensity and Duration of Potential Health and Safety Impacts .....	4–119
Table 4–33.	Projected Probabilities and Public Risks from Future Sounding Rockets Program Launches from Poker Flat Research Range .....	4–125
Table 4–34.	Projected Annual Worker Safety Impacts of Recovery Operations .....	4–131
Table 4–35.	Projected Annual Impacts on the Public and Workers .....	4–131
Table 4–36.	Estimated Economic Impacts from PFRR Operations by Activity .....	4–134
Table 4–37.	Projects Not Evaluated in Detail for Cumulative Effects .....	4–146
Table 4–38.	Probability of Impact Within Wilderness over the Past 10 Years .....	4–150
Table 4–39.	Alternatives Considered in the Arctic Refuge Draft Revised Comprehensive Conservation Plan .....	4–153
Table 4–40.	Probability of Impact Within Wild River Corridors over the Past 10 Years..	4–160
Table 4–41.	Wild Rivers Being Considered by the Arctic National Wildlife Refuge .....	4–163
Table 4–42.	Summary of Flight Hardware Estimated to Remain in Downrange Lands ....	4–167
Table 4–43.	Meteorological Rocket Hardware Estimated to Remain in Downrange Lands.....	4–169
Table 4–44.	Past Launch Support Items and Estimated Weights in Downrange Lands....	4–171

Table 4–45.	Estimated Weights of Future Launch Support Items in Downrange Lands ...	4–173
Table 4–46.	Estimated Weights of Sounding Rocket-Related Items in Downrange Lands at Year 10 of Cumulative Effects Analysis Period .....	4–175
Table 4–47.	Mitigation Measures Summarized by Alternative .....	4–182
Table 4–48.	Landowner Requirements .....	4–182

## LIST OF ABBREVIATIONS AND ACRONYMS

$\Sigma$	sigma, absolute dispersion
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AK	Alaska
Al	aluminum
ANILCA	Alaska National Interest Lands Conservation Act
BLM	U.S. Bureau of Land Management
C	carbon
Ca	calcium
CAA	Clean Air Act
CAAA	Clean Air Act and its Amendments
Cd	cadmium
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	<i>Code of Federal Regulations</i>
Cl	chlorine
Cm	curium
Co	cobalt
CO <sub>2</sub>	carbon dioxide
Cu	copper
CWA	Clean Water Act
D	distance(s)
dBA	decibels A-weighted
DOD	U.S. Department of Defense
EA	Environmental Assessment(s)
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement(s)
EM	electromagnetic
EPA	U.S. Environmental Protection Agency
ERD	Environmental Resources Document(s)
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FB	Fairbanks, Alaska
Fe	iron
FEIS	Final Environmental Impact Statement
FR	<i>Federal Register</i>
FY	fiscal year
GMU	Game Management Unit
GPS	global positioning system
GRN	Sondre Stromfjord, Greenland
GSFC	Goddard Space Flight Center
H	hydrogen
HANLC	high altitude noctilucent clouds

**LIST OF ABBREVIATIONS AND ACRONYMS (*Continued*)**

HFEF	high frequency electron flux
HMTA	Hazardous Material Transportation Act
HSWA	Hazardous and Solid Waste Act
IR	infrared
kg	kilogram(s)
km	kilometer(s)
kNm	kilo-Newton-meters
kPa	kilopascal(s)
KWAJ	Kwajalein, Marshall Islands
LC	launch complex(es)
Li	Lithium
LVI	launch vehicle impact
Mg	magnesium
MISTI	mesospheric ionization structure and turbulence investigation
mm	millimeter(s)
MMPA	Marine Mammals Protection Act
MOTR	Multi-Object Tracking Radar
MS	mass spectrometer
msl	mean sea level
N	nitrogen
NAAQS	National Ambient Air Quality Standards
NACA	National Advisory Committee for Aeronautics
NASA	National Aeronautics and Space Administration
NCA	National Conservation Area
NEPA	National Environmental Policy Act
NHPA	<i>National Historic Preservation Act</i>
NMFS	<i>National Marine Fisheries Service</i>
NO <sub>x</sub>	oxides of nitrogen
NPS	National Park Service
NRA	National Recreation Area
NRHP	National Register of Historic Places
NSROC	NASA Sounding Rocket Operations Contract
NWR	National Wildlife Refuge
OSHA	Occupational Safety and Health Administration
OSSA	Office of Space Science and Applications
Pb	lead
PFRR	Poker Flat Research Range
pH	the negative logarithm of the effective hydrogen ion concentration in gram equivalents per liter, used in expressing both acidity and alkalinity
PM <sub>n</sub>	particulate matter with an aerodynamic diameter less than or equal to <i>n</i> micrometers
psi	pounds per square inch

## LIST OF ABBREVIATIONS AND ACRONYMS (*Continued*)

QE	quadrant elevation or launch angle
RCRA	Resource Conservation and Recovery Act
RNA	Research Natural Area
ROI	Region of Influence
RS	Radioactive source
RSO	Range Safety Officer
S	sulfur
S-T	stratosphere - troposphere
SEC, sec	second(s)
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Office
SO	stratospheric ozone
Sr	strontium
SRP	Sounding Rockets Program
STS	Space Transportation System (Space Shuttle)
T	threatened
TLV	threshold limit values
TSCA	Toxic Substances Control Act
UAF	University of Alaska Fairbanks
U.S.	United States
U.S.C.	<i>United States Code</i>
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VA	Virginia
VRM	Visual Resource Management
WFF	Wallop Flight Facility
WI	Wallop Island, Virginia
WSMR	White Sands Missile Range

## COMMON METRIC/BRITISH SYSTEM EQUIVALENTS

### **Length**

1 centimeter (cm) = 0.3937 inch	1 inch = 2.54 cm
1 centimeter = 0.0328 foot (ft)	1 foot = 30.48 cm
1 meter (m) = 3.2808 feet	1 ft = 0.3048 m
1 meter = 0.0006 mile (mi)	1 mi = 1609.3440 m
1 kilometer (km) = 0.6214 mile	1 mi = 1.6093 km
1 kilometer = 0.53996 nautical mile (nmi)	1 nmi = 1.8520 km
	1 mi = 0.87 nmi
	1 nmi = 1.15 mi

### **Area**

1 square centimeter ( $\text{cm}^2$ ) = 0.1550 square inch ( $\text{in}^2$ )	1 $\text{in}^2$ = 6.4516 $\text{cm}^2$
1 square meter ( $\text{m}^2$ ) = 10.7639 square feet ( $\text{ft}^2$ )	1 $\text{ft}^2$ = 0.09290 $\text{m}^2$
1 square kilometer ( $\text{km}^2$ ) = 0.3861 square mile ( $\text{mi}^2$ )	1 $\text{mi}^2$ = 2.5900 $\text{km}^2$
1 hectare (ha) = 2.4710 acres (ac)	1 ac = 0.4047 ha
1 hectare (ha) = 10,000 square meters ( $\text{m}^2$ )	1 $\text{ft}^2$ = 0.000022957 ac

### **Volume**

1 cubic centimeter ( $\text{cm}^3$ ) = 0.0610 cubic inch ( $\text{in}^3$ )	1 $\text{in}^3$ = 16.3871 $\text{cm}^3$
1 cubic meter ( $\text{m}^3$ ) = 35.3147 cubic feet ( $\text{ft}^3$ )	1 $\text{ft}^3$ = 0.0283 $\text{m}^3$
1 cubic meter ( $\text{m}^3$ ) = 1.308 cubic yards ( $\text{yd}^3$ )	1 $\text{yd}^3$ = 0.76455 $\text{m}^3$
1 cubic meter ( $\text{m}^3$ ) = 0.000811 acre-ft	1233 $\text{m}^3$ = 1 acre-ft
1 liter (l) = 1.0567 quarts (qt)	1 qt = 0.9463264 l
1 liter = 0.2642 gallon (gal)	1 gal = 3.7845 l
1 kiloliter (kl) = 264.2 gal	1 gal = 0.0038 kl

### **Mass/Weight**

1 gram (g) = 0.0353 ounce (oz)	1 oz = 28.3495 g
1 kilogram (kg) = 2.2046 pounds (lb)	1 lb = 0.4536 kg
1 metric ton (mt) = 1.1023 tons	1 ton = 0.9072 metric ton

### **Energy**

1 joule = 0.0009 British thermal unit (BTU)	1 BTU = 1054.18 joule
1 joule = 0.2392 gram-calorie (g-cal)	1 g-cal = 4.1819 joule

### **Pressure**

1 newton/square meter ( $\text{N}/\text{m}^2$ ) = 0.0208 pound/square foot (psf)	1 psf = 48 $\text{N}/\text{m}^2$
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### **Force**

1 newton (N) = 0.2248 pound-force (lbf)	1 lbf = 4.4478 N
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