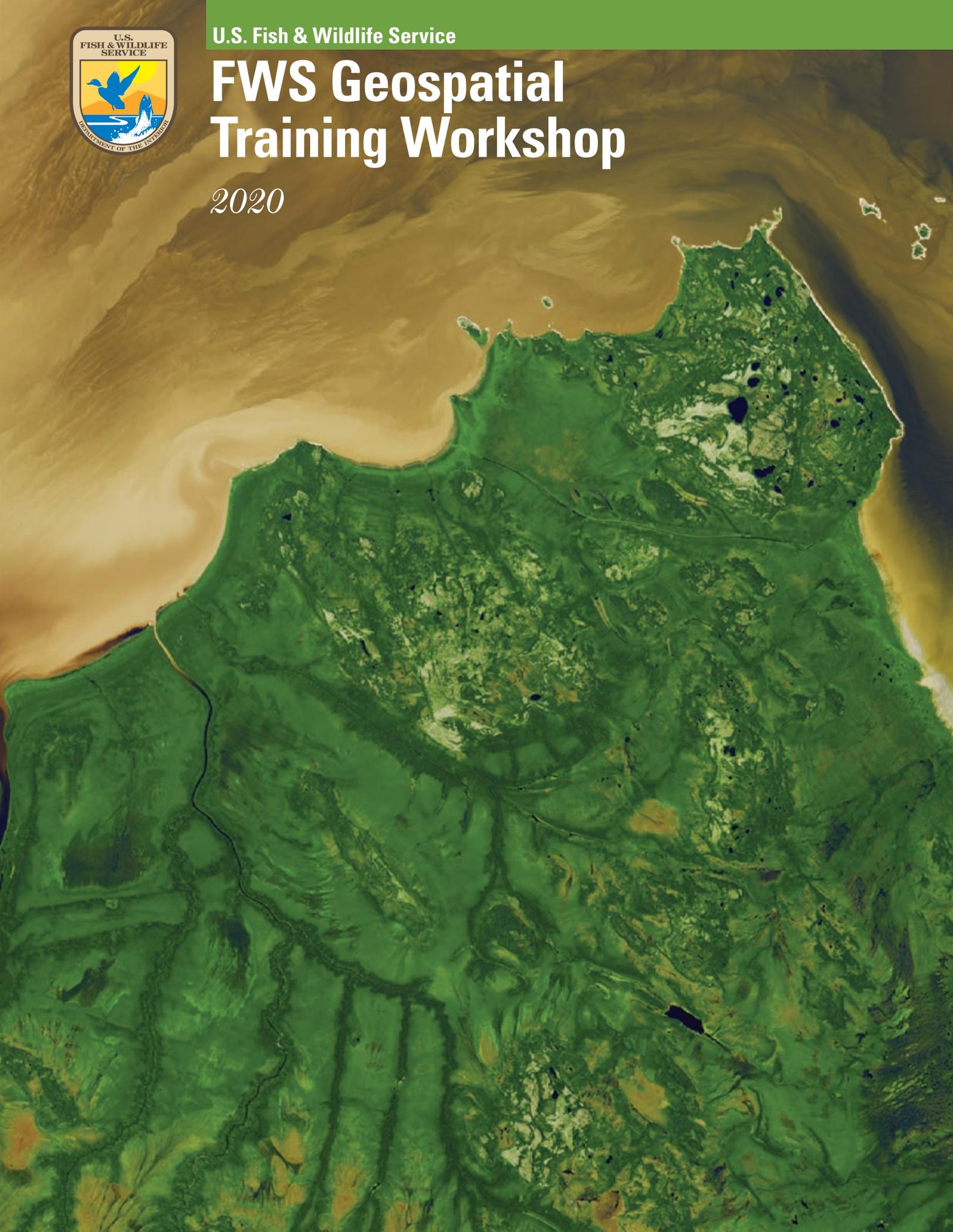




U.S. Fish & Wildlife Service

FWS Geospatial Training Workshop

2020



Welcome

Welcome to the 12th biennial Fish and Wildlife Service Geospatial Training Workshop!

It is a remarkable time for GIS and other geospatial applications in the Fish and Wildlife Service. We are continuously evolving to incorporate the latest software, applications and technologies in support of the FWS mission and our daily work in the field. With ever-changing software and tech, the need for training has never been more important.

This year we are pleased to feature FWS-specific training modules in each class and clinic! You are encouraged to take every opportunity this week to learn from your instructors and peers. Our instructors and speakers come from a variety of FWS regions, DOI directorates and industry. They offer a wealth of technical expertise and real-world experience, and are excited to share with you. Ask questions, trouble-shoot problems, and share solutions! Take advantage of every class and opportunity, and return to your work area with new knowledge and skills.

I thank you for dedicating your valuable time to attend this training and remain current in crucial geospatial skills that are relevant to your work. Special thanks to all the instructors and coordinators who spent many hours putting together this special training opportunity.

Enjoy your week at the beautiful National Conservation Training Center.



Kenneth Elsner
FWS National GIS Coordinator (Acting)



Week-at-a-Glance

February 2–7, 2020

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8 am–12 pm	Check-in <i>Entry Building</i>	Check-in <i>Entry Building</i> Full-day Classes ■ ArcGIS Pro ■ Collector for Trainers	Plenary <i>Byrd Auditorium</i> ■ Presentations ■ Software Demonstrations ■ Lightning Talks	FWS Program Breakout Meetings FWS User Map & App Exhibition <i>Gallery</i>	Plenary <i>Byrd Auditorium</i> ■ Presentations ■ Software Demonstrations ■ Open Forum on IT ■ Lightning Talks	Plenary <i>Byrd Auditorium</i> ■ Presentations ■ Software Demonstrations ■ Lightning Talks
12–1 pm	Lunch <i>Commons</i>	Lunch <i>Commons</i>	Lunch <i>Commons</i>	Lunch <i>Commons</i>	Lunch <i>Commons</i>	Boxed Lunch <i>Commons</i>
1–5 pm	Check-in <i>Entry Building</i>	Full-day Classes ■ ArcGIS Pro ■ Collector for Trainers	Hands-on Clinics Doctors' Offices	Hands-on Clinics Doctors' Offices	Hands-on Clinics Doctors' Offices	
5:30–7 pm	Dinner <i>Commons</i>	Dinner <i>Commons</i>	Dinner <i>Commons</i>	Dinner <i>Commons</i>	Dinner <i>Commons</i>	
7–8:30 pm			Geospatial Game Show <i>Commons/ Roosevelt Room</i>	FWS User Map & App Contest Voting <i>Commons/Gallery</i>	FWS Social <i>Commons/ Roosevelt Room</i>	

NCTC Hours and Services

NCTC Front Desk is open 24 hours a day	304/876 7403 or 304/876 1600
Commons Building Sundry/Gift Shop	Call the Front Desk for current hours, 304/876 1600
Dining	Breakfast: 6:30 am – 9:00 am (<i>Hot food until 8:30 am</i>) Lunch: 11:30 am – 1:30 pm (<i>Hot food until 1:00 pm</i>) Dinner: 5:30 pm – 7:30 pm (<i>Hot food until 7:30 pm</i>)
Lounge	Sunday – Thursday 5:30 pm – 11:00 pm (<i>or earlier</i>)
Physical Fitness Center Exercise Room	Monday – Friday 6:00 am – 10:00 pm <i>Weight and workout room with elliptical, treadmill, stair stepper, and weight lifting</i>
Gym	Monday – Friday 6:00 am – 10:00 pm <i>Full-size gymnasium / basketball court</i>

Monday

February 3, 2020

	Room 109 IE	Room 114 IE	Room 156 IW	Room 151 IW
8:00–12:00	ArcGIS Pro Intensive <i>Mark Parr and Steve Holzman</i>	ArcGIS Pro Intensive <i>Matt Heller and Stephanie Saunders</i>	ArcGIS Pro Intensive <i>Cathy Wilson and Karen Rank</i>	Collector for Trainers <i>Dan Craver, Liz Cruz and Kenneth Elsner</i>
12:00–1:00	Lunch			
1:00–5:00	ArcGIS Pro Intensive <i>Mark Parr and Steve Holzman</i>	ArcGIS Pro Intensive <i>Matt Heller and Stephanie Saunders</i>	ArcGIS Pro Intensive <i>Cathy Wilson and Karen Rank</i>	Collector for Trainers <i>Dan Craver, Liz Cruz and Kenneth Elsner</i>
5:30–7:00	Dinner Commons			



Tuesday

February 4, 2020

8:00–12:00	Plenary — Robert Byrd Auditorium
8:00–8:15	Welcome/Introduction — Clarissa Mathews and Steve Chase
8:15–9:00	Keynote Plenary: The Top Ten Tech Trends and Terms in Location Intelligence — Joe Francica
9:00–9:30	Software Demonstration: ERDAS — Jeff Van de Vaarst
9:30–10:00	Presentation: FWS Geospatial Update — Kenneth Elsner
10:00–10:30	Break — Robert Byrd Auditorium (Group photo)
10:30–11:00	Software Demonstration: Esri — What's new with ArcGIS Pro — Patrick Ryan and James Sill
11:00–11:30	Lightning Round I <ul style="list-style-type: none"> ■ Improving Incident Communications with Dashboard and Mobile GIS — Cinthia Eichhorn ■ USGS Elevation Data — Mike Artmann ■ Sign Survey — Gabriel DeAlessio ■ Hunting and Fishing Update — Daniel Konzek ■ You, Yes You, Can Teach ArcGIS Pro! — Karen Rank
11:30–12:00	Software Demonstration: The National Map and Earth Explorer — Ryan Longhenry and Rob Dollison
12:00–1:00	Lunch — Commons
1:00–5:00	Doctors' Offices — 103, 105 & 107 IE Clinics (details below)
3:00–3:15	Break — Instructional East and Instructional West
5:30–7:00	Dinner — Commons
7:00–8:30	Geospatial Game Show — Commons Roosevelt Room — Kurt Snider and Jason Duke

Tuesday Training Clinics

Time 1–3 pm	Time 3:15–5 pm
114 IE Data Management Planning <i>Emily Silverman</i>	114 IE High Performance Computing 101 <i>Natalya Rapstine</i>
151 IW Survey123 Intro <i>Daniel Konzek and Richard Easterbrook</i>	151 IW Survey123 Advanced <i>Daniel Konzek and Richard Easterbrook</i>
156 IW LiDAR (I) <i>Jeff Van de Vaarst</i>	156 IW LiDAR (II) <i>Jeff Van de Vaarst</i>
109 IE ArcGIS Online/Inside Maps <i>Paul Hoeffler and Stephanie Saunders</i>	109 IE Building Web Apps for Decision Support <i>Todd Sutherland</i>
111 IE Maxent <i>Mark Endries and Ryan Theel</i>	111 IE Species Distribution Modeling using VisTrails: SAHM <i>Catherine Jamevich</i>

■ Data Management
 ■ Spatial Analysis
 ■ Remote Sensing
 ■ Web Apps
 ■ Mobile

Wednesday

February 5, 2020

8:00–9:30	FWS Program Breakout Meetings <ul style="list-style-type: none"> ■ Refuges — Robert Byrd Auditorium (Facilitators: Karen Rank & Ron Salz) ■ Ecological Services/Fisheries & Aquatics — Room 151 IW (Facilitators: Michaelle Shultz & Kurt Snider) ■ Science Applications & Migratory Birds — Room 156 IW (Facilitators: Matt Heller & BJ Richardson)
9:30–10:00	Break — Instructional West
10:00–12:00	FWS User Map & App Exhibition — Commons Gallery <ul style="list-style-type: none"> ■ Map Doctors ■ User Map and App Contest
12:00–1:00	Lunch — Commons
1:00–5:00	Doctors' Offices — 103, 105 & 107 IE Clinics (details below)
3:00–3:15	Break — Instructional East and Instructional West
5:30–7:00	Dinner — Commons
7:00–8:30	Map Exhibition Voting — Commons Gallery

Wednesday Training Clinics

Time 1–3 pm	Time 3:15–5 pm
151 IW Operations Dashboard Cinthia Eichhorn	151 IW Hosted Features: Layers, Services, Views and Applications (Section 1) Gabriel DeAlessio and Paul Hoeffler
156 IW Image Classification Jeff Van de Vaarst	156 IW Remote Sensing Data Acquisition (Section 1) Mike Artmann, Steve Sesnie and Doug Newcomb
109 IE Analysis of Spatial Data Using R (I) Thomas Edwards	109 IE Analysis of Spatial Data Using R (II) Thomas Edwards
111 IE Model Building with Python Erin Butts, Matt Heller, and David Hines	111 IE Data Wrangling with Python Erin Butts, Matt Heller, and David Hines

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Thursday

February 6, 2020

8:00–12:00	Plenary — Robert Byrd Auditorium
8:00–8:30	Presentation: Governing a Flat Earth Through GIS — Tod Dabolt and Kayloni Ah Tong
8:30–9:00	Software Demonstration: FME — Safe Software — Christian Berger and Ryan Cragg
9:00–9:30	Presentation: Future Directions for IT in FWS — Paul Gibson
9:30–10:00	Break — Robert Byrd Auditorium
10:00–10:30	Open Forum: IT Update — Tod Dabolt, Shelley Hartmann, Paul Gibson and Kenneth Elsner
10:30–11:00	Lightning Round II ■ Oh Where, Oh Where, Has My Fileserver Gone? — Kenneth Honsinger ■ ArcGIS Survey 123 Form Design — Jeena Koenig ■ Droning on About UAS — Allen Gilbert ■ QGIS: What's Holding You Back? — Doug Newcomb ■ What's an ATO & Why Does it Matter? — Kenneth Honsinger
11:00–11:30	Software Demonstration: YETI — Natalya Rapstine
11:30–11:45	FWS GeoED Task Group Update — Clarissa Mathews
11:45–1:00	Lunch — Commons
1:00–5:00	Doctors' Offices — 103, 105 & 107 IE Clinics (details below)
3:00–3:15	Break — Instructional East and Instructional West
5:30–7:00	Dinner — Commons
7:00–10:00	FWS Social — Commons Roosevelt Room (Hawaiian Theme)

Thursday Training Clinics

Time 1–3 pm	Time 3:15–5 pm
114 IE Hosted Features: Layers, Services, Views and Applications (Section 2) <i>Gabriel DeAlessio and Paul Hoeffler</i>	114 IE Avenza Maps <i>Zachary Cravens</i>
151 IW StoryMaps (I) — How to Make a Story Map, Start-to-Finish <i>Trisha Johnson and Kirsten Luke McCord</i>	151 IW StoryMaps (II) — Advanced Applications and Integration <i>Trisha Johnson and Kirsten Luke McCord</i>
156 IW Feature Extraction <i>Jeff Van de Vaarst</i>	156 IW Remote Sensing Data Acquisition (Section 2) <i>Steve Sesnie and Mike Artmann</i>
109 IE QGIS <i>Roy Hewitt and Doug Newcomb</i>	109 IE Enterprise Data Warehouse (EDW) and X Drive <i>Kenneth Elsner and Stephanie Saunders</i>
111 IE Safe Software FME Desktop <i>Christian Berger and Ryan Cragg</i>	111 IE Safe Software FME Server <i>Christian Berger and Ryan Cragg</i>

■ Data Management
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Friday

February 7, 2020

8:30–11:30	Plenary — Robert Byrd Auditorium
8:30–9:00	Presentation: Data Management in the USFWS — Jason Duke
9:00–9:30	Lightning Round III ■ MD Editor — Matthew Heller ■ Data Management Planning for Migratory Birds — Lacey Williamson ■ EDW — Stephanie Saunders ■ Document it Damn it! — ArcGIS Online Metadata — Richard Easterbrook ■ FWS Cadastral: Living the Data Management Lifecycle — Ron Salz
9:30–10:00	Break — Robert Byrd Auditorium
10:00–10:30	Presentation: Big Geospatial Data for Resource Management — Christian Thomas and Brendan Jarrell
10:30–11:00	Software Demonstration: Esri — What's New with Story Maps and ArcGIS Online — Ryan Patrick and James Sill
11:00–11:15	Closing Comments and Evaluations — Clarissa Mathews
12:00	Boxed lunches available in the Commons

Doctors' Offices

Meet with ERDAS, ESRI or FME representatives or a QGIS aficionado to resolve your specific geospatial software issues. Consultations are by appointment only. Please sign-up in advance at the Entry Auditorium registration desk.

FWS User Apps & Maps Exhibition

Interact with colleagues and browse printed maps and posters, story maps, web apps and web maps in the Gallery. Software consultants will be on hand to provide advice on your specific map or data collection needs and to demo the latest in mapping technology Wednesday morning (10:00am–12:00 pm), alongside the digital web and printed media Exhibition submissions. Be sure to review the entries and cast your electronic votes in the digital and printed categories Wednesday evening (7:00–8:30 pm). Contest winners will be announced at the evening social on Thursday (7:00–10:00 pm).

Acknowledgements

We would like to thank the many DOI, FWS and USGS volunteers who contributed their time, expertise and enthusiasm to this workshop. Your contributions made it possible to offer the diversity of programming and degree of hands-on training with direct applicability to FWS work!!

A big thank-you also goes out to the many software vendors that provided expert demonstrations, updates, and direct consultations!

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