

NOAA Marine Debris Program Emergency Response Mission

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NOAA Marine Debris Program

Established in **2006** by Congress as the federal lead for marine debris

Vision: the global ocean and its coasts free from the impacts of marine debris

Mission: to investigate and prevent the adverse impacts of marine debris



Photo: NOAA





Photo: NOAA





Photo: NOAA





What is Marine Debris?

“any **persistent solid material** that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned **into the marine environment or the Great Lakes.**”

From MICRO

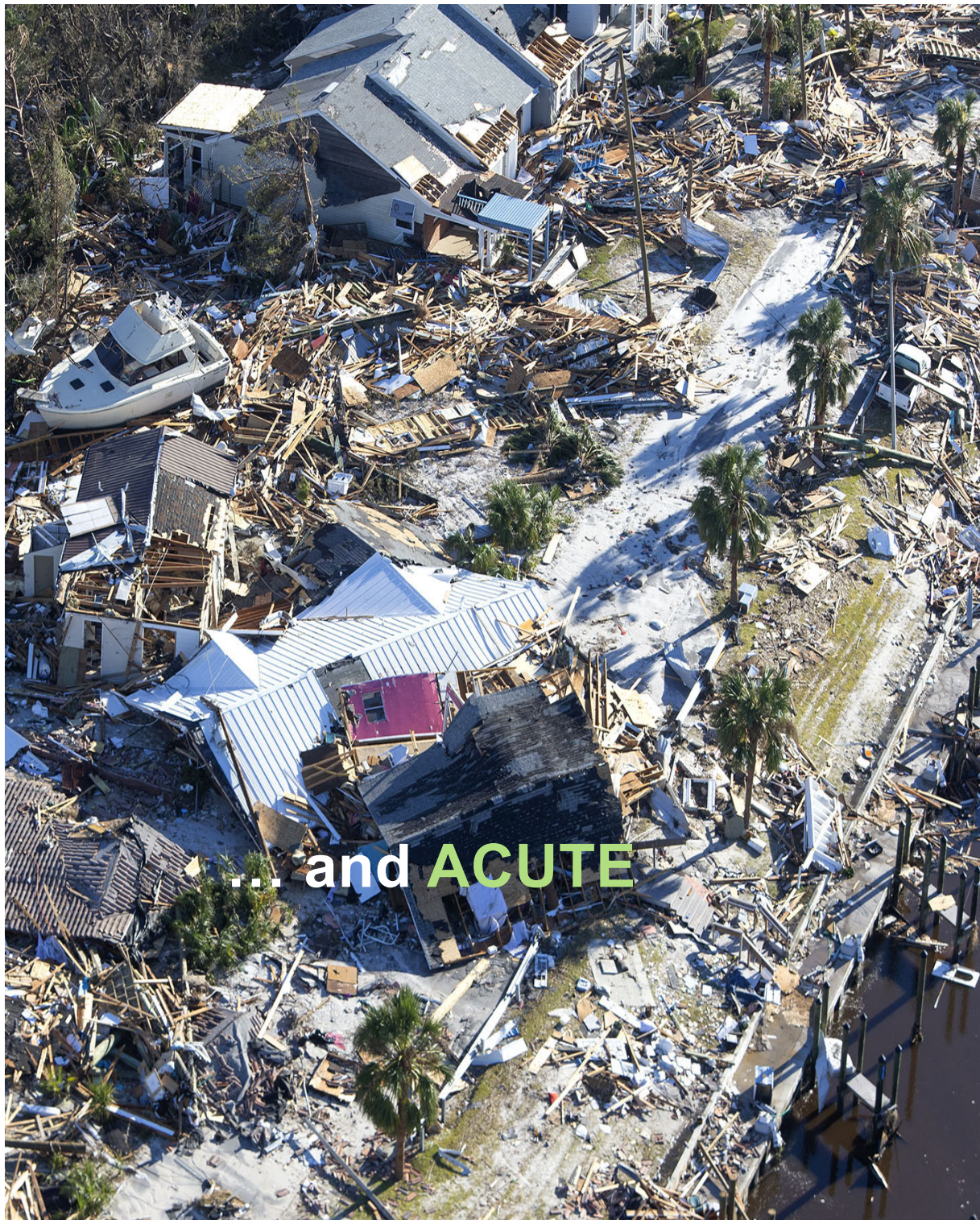
to MACRO



Both **CHRONIC**...

- Littering
- Storm Drains
- Illegal Dumping
- Fishing/Boating Activities
- Offshore Industry
- Aquaculture





Program Pillars

- Prevention
- Removal
- Research
- Regional Coordination
- Emergency Response
- International Engagement



Program Pillars

- Prevention
- Removal
- Research
- Regional Coordination
- **Emergency Response**
- International Engagement



MDP: Response History

Case-by-case:

- **Hurricanes Katrina and Rita (2005)**
- **American Samoa Tsunami (2009)**
- **Japan Tsunami (2011)**
- **Super Storm Sandy (2012)**
- **Hurricanes Harvey, Irma, and Maria (2017)**
- **Hurricanes Florence, Yutu, and Michael (2018)**

Funding and support for:

- **Mapping and surveying**
- **Risk assessments**
- **Model trajectories**
- **Remove debris**





MDP: Response History

2012: Amendments to the Marine Debris Act

Includes specific language on response mandate

2014: Regional Response Planning Project

*Working with relevant agencies to create **Regional Response Guides***

Marine Debris Response Guides

- Focus on **waterway debris**
- Info in a single location
Local-state-federal-private
- Clarify organization roles
Waterway jurisdiction/ownership
- Not all states have a lead agency or funding
- Target audience: All levels of government, responders

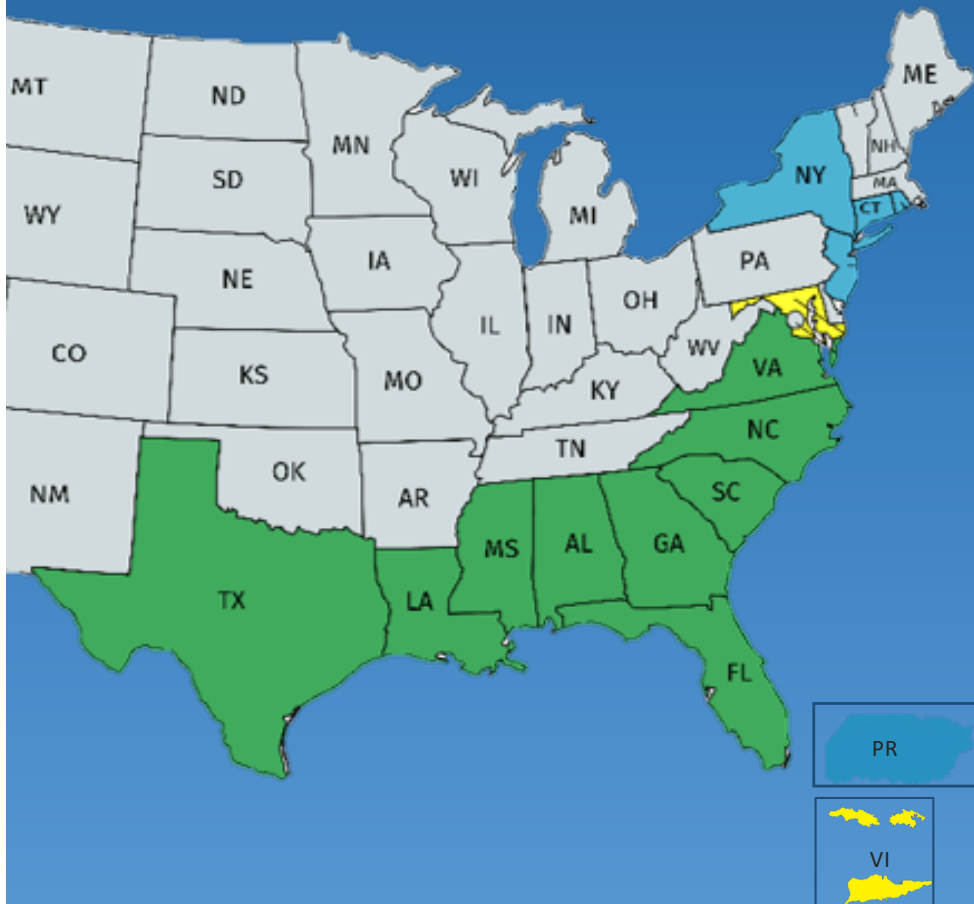


National Project Status

9 Published & Complete

2 In Development

5 Passive Research Complete



Alabama Incident Waterway Debris Response Action Flowchart

START →

Is waterway debris in a USACE federally maintained waterway or channel, or immediately adjacent thereto?

Yes No

Does waterway debris have the potential to release oil or hazardous material?

Yes No

Debris in federally maintained waterway (pollution threat)

- Report to NRC 1-800-424-8802
- Removal authorized under NCP
- USCG oversees response by RP. If vessel with no RP, USCG removes pollution threat (battery, oil) and USACE removes vessel.

Debris in federally maintained waterway

USACE removes waterway debris, or oversees removal by RP

Is waterway debris on private property?

No Yes

Debris on private property

Refer to homeowner's insurance policy

Is waterway debris in federal waters (beyond 3 n. mi.) or on federal lands?

No Yes

Is waterway debris a direct result of a Presidential disaster declaration?

Yes No

Is debris a direct result of an NRCS State Conservationist declared disaster, located in non-tidal waters, and does removal meet all NRCS EWP eligibility criteria? See criteria at bottom right of page.

Yes No

Debris eligible for NRCS EWP funding
NRCS funds removal by eligible sponsor under EWP program. Cost share is typically 75% NRCS, 25% sponsor.

Does waterway debris have the potential to release oil or hazardous material?

No Yes

Debris on federal lands or beyond 3 n.m.

- Federal Agency removes debris on federal lands
- USFWS Bon Secour NWR in Baldwin County
- USFWS Grand Bay NWR in Mobile County
- No Federal agency actively removes waterway debris beyond 3 n.mi. unless it is a pollution threat or in a USACE federally maintained waterway or channel

ACP – Area Contingency Plan

Acronyms

ADCNR – AL Department of Conservation and Natural Resources
ADEM – AL Department of Environmental Management
AEMA – AL Emergency Management Agency
EPA – Environmental Protection Agency
ESF – Emergency Support Function
EWP – Emergency Watershed Protection Program
FEMA – Federal Emergency Management Agency
NCP – National Oil and Hazardous Substance Contingency Plan

NRC – National Response Center

NRCS – Natural Resources Conservation Service
NWR – National Wildlife Refuge
RP – Responsible Party (Owner, Operator, Lessee)
USACE – U.S. Army Corps of Engineers
USCG – U.S. Coast Guard
USFWS – U.S. Fish and Wildlife Service

Flowchart Key

- Response action for waterway debris that has the potential to release oil or hazardous material
- Response action for waterway debris that is not oil or a hazardous material
- Indicates response may occur under Stafford Act authorities and/or funds

Waterway Debris/Incident Waterway Debris: Any solid material, oil or hazardous material that enters a waterway following an acute release incident and poses a threat to the natural or man-made environment. This may include shoreline debris and debris in some inland, non-tidal waterways.

Does waterway debris have the potential to release oil or hazardous material?

Yes No

Debris outside of federally maintained waterway, no Stafford Act declaration (pollution threat)

- Response managed at lowest jurisdictional level capable of handling the removal
- Local → State → Federal
- For State-led response, ADEM leads response under State ESF10 in coordination with ADCNR

For oil with a visible sheen or hazardous material over the reportable quantity

- Report to NRC 1-800-424-8802
- Report to AEMA Warning Point 1-800-843-0699
- Removal authorized under NCP
- If Federal assistance is required, USCG or EPA oversees response by RP. Generally, response is managed by USCG in ACP Coastal Zone and by EPA in ACP Inland Zone.
- If vessel with no RP, USCG removes pollution threat (battery, oil) but generally does not remove vessel
- Unlike response under Stafford Act declaration, under NCP USCG/EPA may respond without a request from local, state or tribal governments

Debris in state/local public waters, no Stafford Act declaration

- Submerged lands waterward of the mean low water line beneath navigable fresh water or waterward of the mean high tide line beneath tidally-influenced waters to 3 n.mi. are the property of the State and managed by ADCNR
- Response managed at lowest jurisdictional level capable of handling the removal
- Local → State
- For State-led response, ADCNR leads response under State ESF3
- State restricts mooring of vessels on state-owned submerged lands and has property salvage legislation regarding the right to take up and secure property adrift
- AL Marine Police may identify and contact vessel owner for recoverable waterway debris removal. May fine owner if debris is a hazard to navigation and is not removed.

Is debris located in non-tidal waters, and does removal meet all NRCS EWP eligibility criteria? See criteria at bottom right of page.

No Yes

Is waterway debris located in the designated disaster area?

Yes No

Eligibility Determination by FEMA: Made on case-by-case discretionary basis in coordination with eligible applicant, State, and other federal agencies. Is removal in the public interest? Does at least one of the following apply? Removal...

- eliminates immediate threat to human lives, public health and safety
- eliminates immediate threat of significant damage to improved public and private property
- ensures economic recovery of the affected areas to the benefit of the community-at-large

Generally, debris that is an obstruction to vessel traffic in a commercial or commonly used waterway is eligible up to mean high tide and to a depth of 2ft below the maximum draft of the largest vessel that used the waterway at low tide prior to the disaster. Shoreline debris is a secondary focus. (See FEMA Recovery Policy 9523.5)

Stafford Act Declaration

Does waterway debris have the potential to release oil or hazardous material?

Yes No

Is waterway debris oil with a visible sheen or hazardous material over the reportable quantity?

Yes No

Removal authorized under NCP (ESF10)

- Report to NRC 1-800-424-8802 and AEMA Warning Point 1-800-843-0699
- FEMA funds may be used if not at pre-existing site under NCP. If RP is known, must apply insurance proceeds first.
- Response managed at lowest jurisdictional level capable of handling the removal: Local → State → Federal
- For State-led response, ADEM is lead under State ESF10 in coordination with ADCNR
- If Federal assistance is required, USCG or EPA oversees response. Generally, response is managed by USCG in ACP Coastal Zone and by EPA in ACP Inland Zone.
- Under NCP, USCG/EPA may respond without a request from local, state or tribal governments.

Has the state/local government demonstrated to FEMA that they lack the capability to perform or contract the hazmat debris removal work?

Yes No

FEMA Direct Federal Assistance

- FEMA mission assignment to another federal agency to perform or contract the debris removal work
- USACE disposes of building debris hazmat, such as household hazardous materials, orphaned hazardous materials and electronic goods under ESF3
- EPA or USCG may lead hazardous waste disposal under ESF10

FEMA Public Assistance Funding

- Reimbursement to eligible applicant to remove and dispose of hazardous waterway debris using their own forces or contract labor
- Funding from FEMA to AEMA then to eligible applicant
- If State is the eligible applicant, ADEM leads response under State ESF10 in coordination with ADCNR

Is the waterway debris recoverable (traceable to an owner), i.e. a vessel with a Hull Identification Number (HIN)?

No Yes

Has the state/local government demonstrated to FEMA that they lack the capability to perform or contract the debris removal work?

Yes No

FEMA Direct Federal Assistance

- FEMA mission assignment to another federal agency to perform or contract the debris removal work
- USACE leads eligible debris removal under ESF3

FEMA Public Assistance Funding

- Reimbursement to eligible applicant to remove and dispose of waterway debris using their own forces or contract labor
- Funding from FEMA to AEMA then to eligible applicant
- If State is the eligible applicant, ADCNR generally leads response under State ESF3
- ❖ FEMA provides funding but does not conduct debris removal work
- ❖ FEMA Eligible Applicants must have legal responsibility to remove the debris and include state and local governments, Indian tribes, and certain non-profits
- ❖ Public Assistance cost share is typically 75% FEMA, 12.5% state, 12.5% applicant

Recoverable debris in state/local waters, Stafford Act declaration

- State of Alabama has no derelict vessel law and does not require a title for boat ownership or insurance
- Alabama Marine Police may assist ADCNR (or the eligible applicant) in identifying and contacting owner
- If owner is found, apply insurance proceeds and owner takes vessel
- If no owner is found or if the owner is found but there is no insurance on the property and the owner surrenders rights, FEMA may reimburse applicant for removal

EWP Eligibility Determination by NRCS

- Result of Presidential or NRCS State Conservationist declared disaster
- Waterway debris is not in coastal or tidally-influenced waters
- Waterway debris is result of natural disaster
- Recovery measures are for runoff retardation or erosion prevention
- Waterway debris is a threat to life and/or property
- Event caused a sudden impairment in the watershed
- Imminent threat was created by this event
- Have economic, environmental, and social documentation adequate to warrant removal action
- Proposed removal action is technically viable

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Yes

No

Does waterway debris have the potential to release oil or hazardous material?

Is waterway debris on private property?

Debris in federally maintained waterway (pollution threat)

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Refer to homeowner's insurance policy

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Debris in state/local public waters, no Stafford Act declaration

lands waterward of the mean low tide line beneath navigable fresh waterward of the mean high tide with tidally-influenced waters to 3 miles from the property of the State and by ADCNR managed at lowest jurisdictional level of handling the removal. State-led response, ADCNR leads under State ESF3 restricts mooring of vessels on state-merged lands and has property legislation regarding the right to take cure property adrift. Police may identify and contact owner for recoverable waterway removal. May fine owner if debris is a navigation and is not removed.

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- If owner is found, apply insurance proceeds and owner takes vessel
- If no owner is found or if the owner is found but there is no insurance on the property and the owner surrenders rights, FEMA may reimburse applicant for removal

Has the state/local government demonstrated to FEMA that they lack the capability to perform or contract the debris removal work?

Yes

No

FEMA Direct Federal Assistance

FEMA mission assignment to another federal agency to perform or contract the debris removal work

➤ USACE leads eligible debris removal under ESF3

FEMA Public Assistance Funding

Reimbursement to eligible applicant to remove and dispose of waterway debris using their own forces or contract labor

- Funding from FEMA to AEMA then to eligible applicant
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- Waterway debris is a threat to life and/or property
- Event caused a sudden impairment in the watershed
- Imminent threat was created by this event
- Have economic, environmental, and social documentation adequate to warrant removal action
- Proposed removal action is technically viable

Is debris located in non-tidal waters, removal meet all NRCS EWP eligibility? See criteria at bottom right of page

No

Yes

Is waterway debris located in the designated disaster area?

Yes

No

Eligibility Determination by FEMA: Must the public interest? Does at least one of the following apply?

- eliminates immediate threat to human health
- eliminates immediate threat of significant economic loss
- ensures economic recovery of the affected area

Generally, debris that is an obstruction to navigation with a maximum draft of the largest vessel that can pass.

Does waterway debris have the potential to release oil or hazardous material?

Yes

No

Is waterway debris oil with a visible sheen or hazardous material over the reportable quantity?

Yes

No

Removal authorized under NCP (ESF10)

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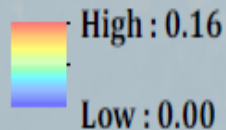
Remote and Local Support

- Coordination
- Communication
- Impacts of Debris/Modeling
- Removal BMPs
- Funding



Where is it going to go?

Predicted Debris Risk Index

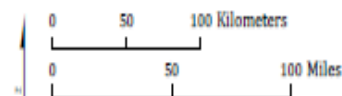


Study Area (20 km from coast)

Storm-Generated Marine Debris Risk in the Northern Gulf of Mexico Including Historical Storm Likelihood



Gulf of Mexico Disaster Response Center
Marine Debris Program, Office of Response and Restoration,
National Ocean Service, National Oceanic and Atmospheric Administration



RPI Generated: 6/28/2013
Research Planning, Inc.

This map depicts a model generated index of relative marine debris risk based upon assumed storm wind speed and surge, the distribution of on-shore infrastructure likely to generate marine debris, and the empirical historical likelihood of tropical storm exposure.

BMPs for Intertidal Marine Debris Removal

Includes:

- General Removal BMPs
- **Vegetated Wetland** Removal BMPs
- **Un-vegetated Intertidal** Removal BMPs

https://marinedebris.noaa.gov/sites/default/files/publications-files/MDP_Debris_Removal_Intertidal_Areas.pdf



Deployed for Hurricanes Harvey, Irma, and Michael

- Joint Field Office
Debris Task Force
- Incident
Command Post
Biological Monitor
Coordinator



Incident Command Post

- Led by USCG, EPA, and the State
- Support from NOAA and USFWS





U.S. Coast Guard

In an effort to mitigate potential threats to the environment from vessels/vehicles/tanks displaced or damaged by the hurricane, the Federal On-Scene Coordinator is working in partnership with area marinas and municipalities to identify vessel/vehicle/tank owners.

This vessel/vehicle/tank may contain oil or hazardous substances and may pose a substantial pollution threat to the environment. As such, it is vitally important that prompt action be taken promptly to prevent damage to the environment.

You are encouraged to contact the U.S. Coast Guard Incident Command Post upon receipt of this notice.

Command Post Contact Information:

305-985-3744

Date: 29SEP17

Target Number: KW-2051



Biological Monitors

“...provide high quality, concise, and consistent guidance that supports pollution response and the removal of vessels/debris, while considering impacts to sensitive to natural, cultural, and other resources.”



Supplemental Funding

- \$17.2 million for assessment, removal, and disposal of hurricane related marine debris
- Impacted States:
 - Florida
 - Georgia
 - Puerto Rico
 - South Carolina
 - Texas
 - US Virgin Islands



Response Mission Evolution

MDP Reauthorization/SOS Act
and recent hurricane seasons
led MDP to consider...

- **How can we improve?**
- **Expand and clarify our roles in emergency response**



Response Mission Evolution

Developing tools and resources

- **Response Mission Document**
 - *Overall capture of MDP response posture, mandate, and interactions*
- **Capabilities Matrix**
 - *Captures key capabilities of MDP and how they can be provided to stakeholders in response*
- **Response Continuum**
 - *Graphical representation of the different tiers/roles of support MDP can provide and decisions to escalate or de-escalate MDP support*

Thank You

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