DCS Anticipatory Action Reference Document

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Global Disaster
Preparedness Center

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PURPOSE

The purpose of this document is to be a repository of information about anticipatory action activities within domestic American Red Cross disaster response.

AUDIENCE

Primarily, this document is meant for ISD staff or volunteers looking to communicate effectively about domestic American Red Cross practices in the anticipatory space. The information here can be used as a reference to portray best practices with the international community to create an effective dialogue about the topic and share practices. The date of this publication is August 2024 and should be updated during the summer 2026.

INTRODUCTION

The American Red Cross has established robust protocols for forecasting, financing, and implementing early actions in anticipation of potential disasters. The Disaster Cycle Services (DCS) branch of the National Society has comprehensive mechanisms and labels specific to the US context, but the core of its programming has an anticipatory action framework.

DCS forecasting relies on formal and informal relationships with weather and federal agencies to obtain reliable data, which is then used by National Headquarters (NHQ) to build annual prediction models interpreted through expertise. Planning and implementation follow heavily proceduralized and time-bound processes once an incoming event is identified. Financing comes from annual budgeting for Disaster Response Operations (DROs), with core funding used for readiness activities. Readiness activities per geographic area involve consistent goal setting for workforce and stocks/supplies and are well connected to early action protocols. Weeks out, readiness actions are tailored to the specific disaster type according to the risk profile of the geographic area. (Grant funding also supports Community Adaptation Programs for disaster risk reduction in select communities, but this is a newer initiative and does not directly provide funds for anticipation.)

Days before a predicted event, pre-set actions begin as early as 168 hours out for hurricanes, with active readiness coordination of personnel, supplies, and shelters occurring at 120 hours out. Shorter timelines are used for other hazards, though these standards are less fixed as other hazards are less predictable than hurricanes. The evidence implies that, generally, the American Red Cross does not focus on anticipatory service delivery and does not conduct any pre-disaster distributions of goods or resources. Instead, they focus primarily on team readiness and pre-positioning. This standardized approach to forecasting, funding, and early preparedness allows the organization to systematically mobilize ahead of disasters and initiate their response phase quickly and effectively. There is more work to be done in exploring their implementation actions in the anticipation window.

OVERALL ORGANIZATION OF DCS

American Red Cross services are geographically divided across the country: six divisions (Northeast, Central Atlantic, Southeast and Caribbean, Southwest and Rocky Mountain, North Central, Pacific), which are further divided in 50 regions.

Disaster Cycle Services is one of five lines of American Red Cross service[1]. Within DCS, activities are categorized as segments within the disaster cycle: Preparedness, Response, and Recovery. Preparedness programming includes educational campaigns about local hazards (Be Red Cross Ready[2], Wildfire Preparedness[3]), home fires (Sound the Alarm[4]), youth preparedness (Pillowcase Project, Prepare with Pedro[5]), and the American Red Cross Emergency App[6]. Response includes readiness actions, such as recruiting and training workforce, as well as operational actions when a hazard approaches and makes landfall. The American Red Cross also includes Disaster Action Team and caseworkers. On any given day, when a disaster strikes, Disaster Action Teams and local caseworkers are deployed on-site, stationed at shelters, and on standby at local Red Cross chapters to help those affected receive the food, care, and basic resources they need to recover. Anticipatory actions taken by the American Red Cross fall between Preparedness and the earliest phase of Response.

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[1] The five lines of service are Disaster Cycle Services, Blood Services, International Services, Training Services, and Service to Armed Forces

[2] Be Red Cross Ready is a branded preparedness essentials program presented by American Red Cross employees or volunteers. It covers general preparedness principles: the importance of preparing, what to prepare for, and how to best prepare. Be Red Cross Ready Presenter's Guide

[3]Wildfire Preparedness Educational Visit Toolkit

[4]Home Fire Campaign/Sound the Alarm Toolkit

[5]Youth Preparedness Programs

[6]Emergency App

When a disaster response operation (DRO) is initiated, it falls within the Response segment of the disaster cycle. Activities carried out by ARC as part of the DRO follow an incident management framework, the Concept of Operations or ConOps[7], to organize and manage the operation. The seven major functional areas within ConOps are: Command, Operations, Information and Planning, Logistics, Workforce, Finance, and External Relations. While each of these functions are active during the disaster response, the timing of activation may mean that some actions begin pre-landfall and can be considered early actions.

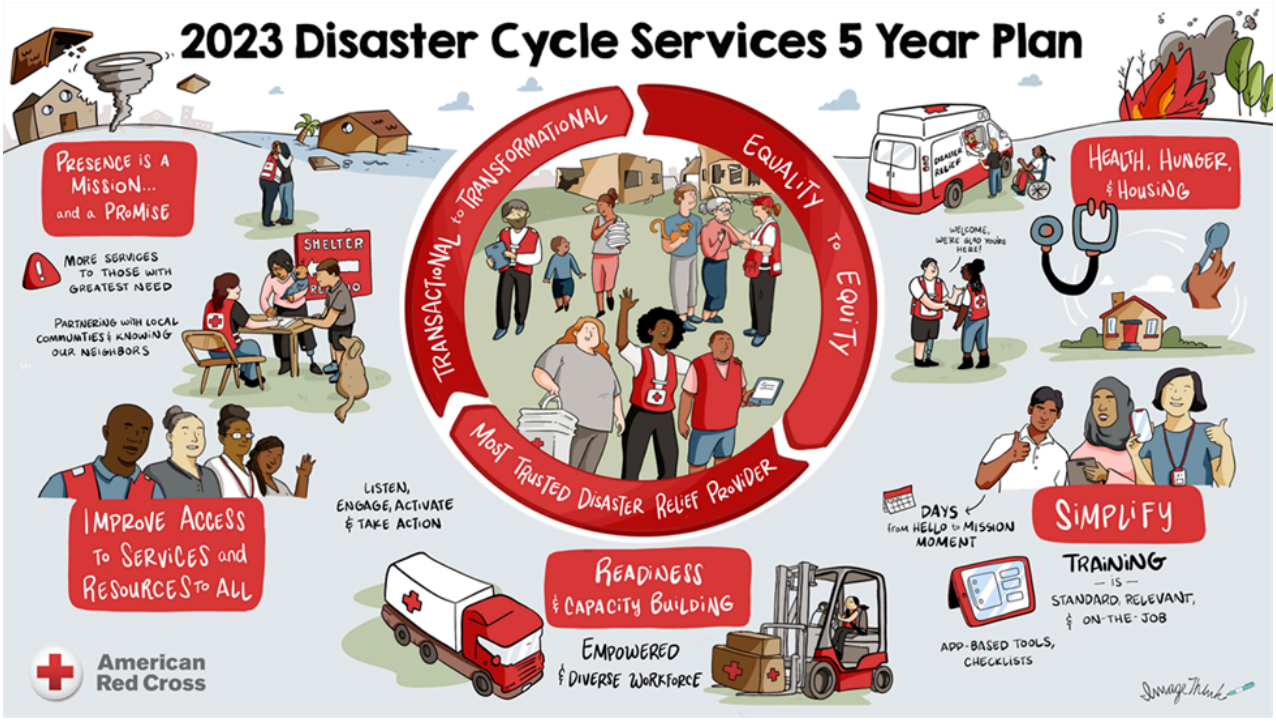
DCS FIVE YEAR VISION

In 2023, American Red Cross published a five-year vision[8] in response to the shift of domestic disaster activity from acute to chronic response. The core actions envisioned are:

- Presence is a mission and a promise
- Improve access to services and resources to all
- Readiness and capacity building
- Simplify
- Health, hunger, and housing

Disasters are occurring with increased frequency in the United States, and they are also repeatedly impacting the same communities. ARC is seeing that clients who are in the recovery phase from one disaster may require services again when the next disaster hits that community. The five-year vision sets out to respond to the needs of communities today – which in many cases means that ARC is not simply responding to the specific disaster-related needs of client, but rather to the overarching vulnerabilities that put that client at higher risk of needing services the next time a hazard approaches. The five-year vision looks at disaster risk reduction as a strategy to better serve disaster clients by increasing community resilience before a disaster event.

[7]Concept of Operations 5.0
[8] Disaster Cycle Services 5-Year Vision



Graphic: Disaster Cycle Services 5-Year Vision

COMMUNITY PREPAREDNESS

Anticipation sits between the preparedness and response phases of the Disaster Management (DM) cycle; it is a window of opportunity after an early warning/trigger but before the onset of a forecasted disaster. This means that community DRR work provides a foundation for Anticipatory Action, complementing prior to a specific, imminent threat. AA plans are stronger when they build on community preparedness efforts. For example, best practice in the Movement, encouraged by the Anticipation Hub, is to base EAP development on Preparedness for Effective Response (PER) frameworks. DCS works along a similar continuum of getting involved in early warning work via an emergency app as well as the relatively new Community Adaptation Program which conducts targeted DRR programs around the US. These lay a lot of the groundwork for how DCS thinks and communicates with communities when the anticipation window arrives.

I. EMERGENCY APP

Often, people are aware of incoming hazards but may not know what to do or lack the information needed to act to mitigate the effects on their families and communities. Early Warning programs assist vulnerable communities to take timely protective measures to reduce the devastating effects of a crisis. In AA, a typical communication or mobilization program may provide early warning messages with key information about the hazard and its impact. For example, a radio message with health advice prior to an epidemic or keeping a community informed of potential election violence would serve as an early warning mechanism. American Red Cross' employment of the Emergency App helps fulfill this function of early warning programming by echoing emergency alerts from government partners and providing information to the community about what to do per hazard type.

The American Red Cross Emergency app is a resource for communities to inform themselves about incoming hazards. While it is beyond the scope of ARC to issue alerts, the Emergency app is customizable for over 40 weather alerts by a geographic area, so that users can narrow down National Weather Service emergency alerts to fit their needs. Users can select multiple locations, thus allowing them to monitor hazards in a person's home area and other locations of personal interest. The app also automatically monitors air quality in each selected location.

In addition to providing targeted weather alerts, the American Red Cross Emergency app also provides guides and to-do lists for each hazard type. This way, when a user receives an alert about an incoming hazard, they also receive information about actions to take to get ready. Once the hazard makes landfall, the app can also be used to find open American Red Cross shelters.

Accessibility was central in the design of the Emergency app, which is available in English and Spanish. For example, there are alert explainers while give simple explanations of what an alert such as "flood warning" mean. All app content is audited annually for accessibility and written at a 6th grade reading level[9].

The Emergency App includes two enhancements for particularly high consequence disasters that have short approach windows. The wildfire enhancement allows users to work towards four goals with tasks: make a wildfire evacuation plan, create defensible space, prepare for wildfire smoke, and get involved locally[10]. The tornado enhancement similarly has goals with

[9] Overview of the Emergency App
[10] Emergency App Wildfire Enhancement Presentation

tasks: monitor tornado alerts, plan where to go and when, practice tornado drills, and learn how to stay safe after the storm[11]. ARC plans to add hurricane and flood enhancements as well. The app, as it exists, is compliant with international standards.

The Common Alerting Protocol is an international standard for exchanging emergency alerts and public warnings. It allows a consistent format for collecting and relaying crucial details during disasters, enabling better coordination between different agencies and across borders. By leveraging FEMA's Emergency Alerting System information, which are compliant with the international standard, American Red Cross seamlessly integrates alert data from diverse sources to provide more comprehensive and actionable warnings to its users.

II. COMMUNITY ADAPTATION PROGRAM

The CAP program is a Disaster Risk Reduction program separate from AA. Where DRR contributes to the world of AA is primarily in providing metrics and indicators for monitoring and outcomes based on disaster risk reduction theory. For example, an anticipatory action program designed for flooding may choose to monitor the percentage of people evacuated along routes established during previous DRR programs. By doing so, that AA initiative relies on the previous DRR work for accurate monitoring and evaluation. Just as traditional DRR contributes to preparedness efforts prior to early actions, the CAP program in DCS pursues preparedness efforts in communities with high vulnerability to specific hazards and provides a set of indicators by which ARC can later evaluate their effectiveness. This has been especially important over the last few years (2020-2024) as the CAP program is relatively new to the overall DCS structure.

As part of the ARC's response to worsening climate crisis, the Community Adaptation Program (CAP) was developed to support communities struggling to cope with the shift to chronic disaster. By investing in community organizations focused on health, hunger, and housing, ARC strengthens overall community resilience in targeted areas within the US that sit at the intersection of social vulnerability and disaster risk.

[11] Emergency App Tornado Enhancement Presentation

While a major focus of CAP is in removing barriers to recovery across a community, the program has flexibility in its design. CAP works through community organizations and established leaders to establish trust and tailor interventions to specific community needs. CAP has potential to fund early actions in anticipation of a hazard because the approach is to identify barriers to recovery, then work backwards to figure out interventions. While pre-landfall cash distributions have not been a part of CAP programming, supply distributions are a possibility if there is an identified need. For example, in one community, the CAP team and partners identified an evacuation challenge for new mothers. The partner, a medical clinic, proposed building feeding kits so that families with young babies could evacuate with supplies on hand to continue feeding while away from home.

SEASONAL DISASTER READINESS

Despite the overall shift to chronic response and a lengthening of traditional disaster "seasons"[12], American Red Cross builds capacity through seasonal or annual disaster readiness activities. Readiness takes place across all levels of the DCS organization from the NHQ Situational Awareness and Decision Support Unit to capacity building at the local regional levels.

Planning assumptions for the year may include, for example, 1-4 level 7 disasters per year. We try to anticipate if they will be concurrent and where there is most likely to be a large event (hurricane or wildfire) and then budget accordingly for estimates of smaller events.

Within seasonal disaster readiness, some programs, tools, and measurements extend beyond general readiness and into the anticipatory space. The National Operations Summary[13] is reviewed every morning during a daily coordination call by the American Red Cross NHQ, National Command Staff, and Division Disaster Directors. This briefing includes a review of current forecasts and threats to the United States, as well as current operations and needs.

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[12] Atlantic hurricane season runs from June 1 to November 30: [1] Emergency App Tornado Enhancement Presentation , wildfire frequency and extent is a reflection of climate change: https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires
[13] National Operations Summary

I. PREDICTION MODELS

A critical aspect of Anticipatory Action is precise disaster prediction forecasting and/or alerting systems. These systems range from complex models that analyze weather to risk models on the likelihood and severity of an event. They cover different hazards from storm patterns to the possibility of election violence or civil unrest. The hurricane prediction models used in DCS help to predict impact size and possible population displacement in an area. Each model, and the planning actions that come after, create the foundations of information the inform the Mass Care response function played by the National Society domestically. They provide the information as evidence to begin moving people and supplies.

It is important to note that while American Red Cross DCS does not use forecast-based trigger models, forecasting products from meteorological offices inform key Red Cross decision-makers who activate anticipatory action protocols directly.

Prediction models used by DCS estimate the impact of a hazard given the hazard type and the population of the affected area. ARC has a team at national headquarters that puts together internal prediction models for a high likelihood, high consequence events - which, for the risk profile of the United States, is hurricanes[14]. As an incoming hurricane approaches impact, the organization can match a model to the situation, then take actions based on the predicted impact size. For hurricanes, an important factor is H-hour – not necessarily the moment that the storm makes landfall, but the point at which winds are strong enough that it is no longer safe to use the airports or travel to shelters. Shelters need to be open by H-hour rather than by time of predicted landfall.

The hurricane prediction models are based on historical data on the origins and destinations of named Atlantic landfalling storms from 1980 to 2020. Based on this data, ARC was able to predict likelihood of landfall in a particular area based on the where the storm forms. The coastline was then mapped out with major population centers, and ARC selected 21 initial scenarios to model.

[14] Other major hazards for the United States may fall under high likelihood, high impact but do not have enough of a prediction timeline for modeling (i.e. Wildfires, cyclones, floods, volcanic eruption). Other hazards may be defined as low likelihood, high impact (i.e. earthquakes) or high likelihood, low impact (home fires, cold snaps, heat waves).

By mapping the geographic area (divided into high, medium, and low intensity zones) and wind field size at time of impact, the maps show the overall size of hurricane's landfall. This is then used to input data about the impacted population to predict service delivery needs.

ARC also works closely with partners who have their own prediction models. For example, cities have models to predict how long it takes to evacuate based on infrastructure and population, and ARC can use that information to determine staffing levels and timing. ARC works closely with local partners and FEMA to help predict damage levels and impact of various disasters.

a. Mass Care planning assumptions

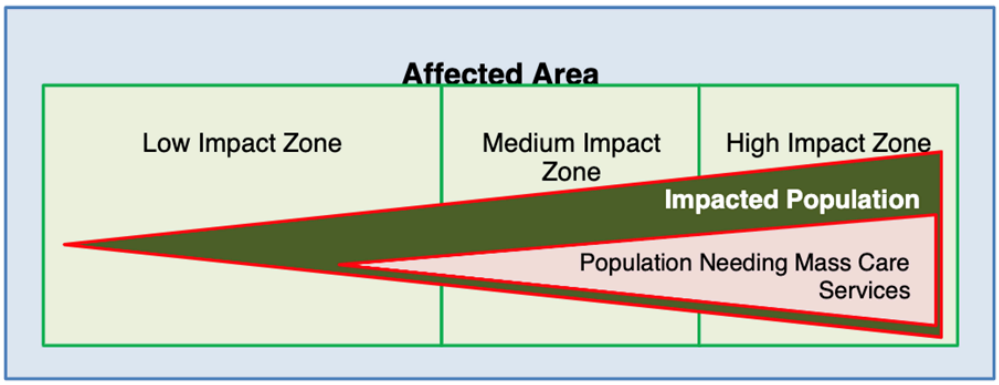
Figure 1. Planning assumptions estimation cycle

Graphic: Determine Mass Care Planning Assumptions

The Mass Care Planning Assumption Spreadsheet[15] is an internal ARC tool to leverage data in determining mass care planning assumptions that guide service delivery levels. This tool incorporates census data, including the CDC Social Vulnerability Index, to create an estimate of both impacted population and the percentage that will need ARC mass care assistance and services. Based on the prediction model's estimated scale of the disaster and the area affected, the Mass Care Planning Assumption Tool is used to determine the estimated population impacted, and from that, forecast sheltering, feeding, and distribution of emergency supplies scenarios based on ARC's historical experience in disaster response.

[15] Mass Care Planning Assumptions Spreadsheet

Figure 2. Population Requiring Mass Care Services



Graphics: Determine Mass Care Planning Assumptions

Because ARC has a history of disaster response, the organization is also able to use past disaster response data to inform future early actions. ARC tracks demographics and overnight shelter stays during disaster response operations, and this information can be used to predict shelter needs for future disasters.

Based on prediction modeling, when there is an incoming hazard approaching the ARC response area, the organization is able to begin making planning assumptions about the need for mass care services, then begin taking early actions such as moving supplies and building staffing patterns for a disaster response. ARC has determined that, winding the clock back from H-hour, planning can begin 168 hours ahead. By 144 hours ahead of H-hour, the planning team has enough information to select which of the 21 scenarios should be used to begin looking at staffing and resourcing needs.

b. Deliberate planning

Regions, Divisions and National Headquarters use the defined prediction models to conduct deliberate planning focused on these 21 scenarios. Deliberate planning is a proactive six-step planning process accomplished under non-emergency conditions and designed to address a potential threat or risk. Deliberate plans are conducted annually in the US in advance of the hurricane season.

Planning teams are formed to create deliberate plans outlining overall goals and objectives, and then utilize the Mass Care Planning Assumptions Spreadsheet to plan service delivery. Considerations in deliberate planning include:

- Supportive Community commitments and/or likely asks of Emergency Management partners based on local relationships and discussions (more information on Supportive Community below)
- Assessment of entry points for incoming staff, particularly airports

- Mass Care Planning Assumptions based on commitments and population impacted
- At least three evacuation DR layout options determining the use of zones and/or districts to break down the operation response into smaller, focused areas
- Post-impact plans and considerations.

The output of deliberate planning is a document that outlines service delivery, both during evacuation and post-impact. Once presented to Division and National leadership for feedback and concurrence, the plans are finalized and implemented when a hurricane risk is identified.

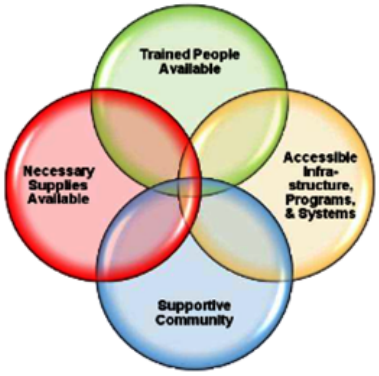
II.National Readiness Target

In best practice for developing early action protocols, plans are determined based on analysis of forecasted risks, historical impact, and vulnerability data which enables decision makers to identify where and when early actions will be targeted. The resulting planning process for AA uses these dimensions to create a budget for early actions, outlining costs for prepositioning stock and annual readiness activities and the budget for the early action activities. Although DCS' practice of setting and fulfilling National Readiness Targets is intended for traditional response operations, not anticipatory actions specifically, they still enable early action decisions to be made with greater accuracy since they are written based on historical data and current capacity. Each chapter's readiness targets are set with that geography's most likely hazard in the calculation (wildfire, hurricane, tornado, etc.).

ARC sets a National Readiness Target (NRT)[16] as a way to measure if the organization has the right amount of resources in the right places when needed. Within ARC's structure, regions are the smallest geographic unit responsible for service delivery during disaster responses, and the National Readiness Target sets an expectation of baseline readiness for each region. The NRT is set based on Regional Risk Ratings, so the target levels vary by region according to risk profile. Each region's NRT includes: availability of trained people; accessible infrastructure, programs, and systems; availability of necessary supplies; and the relationships of a supportive community. ARC additionally sets targets for Divisions and the overall enterprise.

[16] National Readiness Target

Figure 4. Elements of Operational Readiness



Graphic: National Readiness Target

The National Readiness Targets are a part of the responsibilities of the teams with ARC, and they are updated and evaluated throughout the year. It's critical for the organization to understand the readiness level of each area as it informs the timeliness and amount of support that will be needed in case of disaster response. More early actions, such as prepositioning staffing, may be taken if an area facing an incoming hazard has demonstrated low capacity through an inability to reach their readiness targets.

a. Personnel capacity building

Awareness raising, training and simulation exercises implemented during the development of AA plans serve to strengthen a National Societies' readiness to carry out early actions in an effective and timely manner. National Societies who implement workshops and conduct trainings for staff and volunteers to introduce them to anticipatory action concepts and establish ways of working that enable implementation are more likely to be able to act quickly once mobilized. In particular, simulation exercises that involve different levels of staff and volunteers imitating real-life activation are most useful. This bolsters a National Societies' readiness by ensuring everyone involved is aware of their role in advance and identify where processes and standard operating procedures to ensure smooth activations. DCS' Group Activity Position (GAP) model contributes to this exact outcome. Overall, American Red Cross staff and volunteers are highly prepared to begin service delivery in an auxiliary role (shelter, food security, non-food items). However, the awareness of AA concepts and potential implementation of early actions are not widespread among the workforce and demonstrate that the National Society is still directed primarily at traditional post-impact response.

The National Readiness Target for personnel is based on the ideal pool of disaster responders necessary for a disaster response in a given area, per that area's disaster risk assessment. When an internal region of the American Red Cross does not have the personnel available locally to manage a disaster response, calls for volunteers to fill positions begin to go out across a broader area, which increases the budget needed for that response. ARC therefore strategically builds up personnel capacity by setting targets for priority positions in each region in sheltering and disaster health services to reduce the need to transport volunteers as much as possible.

American Red Cross has promotion levels within various disaster response activities. Newer volunteers are considered Service Associates after undergoing a basic series of trainings to understand the expectations of that activity. After deploying as a Service Associate to gain experience, a volunteer can optionally take additional training and submit a request for promotion to Supervisor level. The next tier is Manager level, and so on – leading up to high level Director roles on a disaster response. To have sufficient personnel capacity within a given area, it is necessary to have a pool of volunteers with a variety of position levels across a range of activities.

The Spring into Action Recruitment Initiative[17] is a push to build volunteer capacity for disaster responses specifically ahead of peak hurricane and wildfire seasons. The goal of Spring into Action is to build capacity early and minimize the need for surge capacity efforts when disaster responses are active. The recruitment efforts take two approaches: one is internal recruitment by encouraging current volunteers to build their knowledge and promote to more managerial roles, and the second is external recruitment to bring new volunteers in to train for key disaster response roles[18].

a. Supply prepositioning

Prepositioning activities are undertaken to preposition stock needed for implementing early action activities. Stocks are "specifically, relief items which can be stored over the lifespan of the [anticipated timeframe], ensuring adequate storage facilities, suitable transport links and appropriate insurance. Relief items with a shelf life shorter than the [anticipated timeframe] are not

[17] Spring Into Action Volunteer Recruitment Initiative Toolkit
[18] DCS Spring into Action Job Tool

eligible for prepositioning. Examples of prepositioned stock include shelter kits, aqua tabs, jerry cans, household items such as blankets, sleeping mats which could be used in evacuation centers, etc."[19]. In this way, DCS already practices prepositioning within its nation-wide logistics infrastructure, including Disaster Supply Field Center (DSFC) warehouses, shelter support trailers, kitchen support trailers, wildfire support kits, shelf stable meal trailers, and push packs (shipments of NFI). However, other than wildfire support kits and local adaptations at chapter level under the National Readiness Target initiative, DCS prepositioned stocks are not assembled with a specific hazard in mind. And similar to many other National Societies around the world, the items in question are meant to relieve symptoms of a disaster as opposed to help prevent and mitigate the need pre-crisis. For example, shelter kits are designed to provide safety and warmth for displaced persons instead of materials that might help them fortify their homes before impact. Similarly, kitchen support trailers contain equipment for preparing food for families who have lost the means to do so instead of providing stocks of food and water to families in advance.

The purpose of strategic placement of resources is speed to market (arrival of resources when needed) and speed to scale (escalation of resource levels as appropriate for the disaster response)[20]. Speed to need is the responsibility of individual regions, and each region has a target level of key supplies (cots, comfort kits, and blankets) that are necessary to set up an emergency shelter ahead of a landfall and to welcome displaced populations in the hours after a hazard strikes. Speed to scale is the responsibility of Divisions and National ARC to provide resources on-scene within 72 hours' notice. To accomplish this, ARC has four major warehouses in strategic locations around the United States[21]support trailers. The DFSC network maintained by ARC includes materials to support 500,000 shelter residents. Depending on specific agreements with government partners and advice from regions, supplies may be prepositioned ahead of a disaster "season", particularly in areas that demonstrate high risk and/or have potential to be physically cut off. This is generally in the form of a packed disaster supply trailer, such as Shelter Support Trailers (SSTs), which are kitted with supplies for an 800-person shelter.

[19] Anticipatory Pillar of the DREF brochure practice V2
[20] National Readiness Target November 2019
[21] Texas, Georgia, Missouri, and California

III. Supportive Community Readiness Program

To coordinate a successful implementation of early actions in AA, National Societies are expected to collaborate with a range of different stakeholders in advance. Evidence shows that building partnerships pre-disaster (blue sky) helps has a conducive effect on developing early action measures. For instance, engagement may be with government agencies on forecasting and trigger development that may activate AA protocols. However, if a National Society is not aligned with local ministries on how to prioritize or sequence early actions, the Red Cross or Red Crescent may find themselves undermining the government's ownership of the response. For DCS, the Supportive Community Readiness program works to determine what actions American RC and its government partners will take ahead of and during disaster response and are thereby useful for developing plans for early action.

Supportive Community Readiness Program (SCRP)[22] is designed to align expectations with ARC government partners by using a high likelihood, high consequence hazard scenario as an example. Data gathered through Supportive Community includes qualitative information and nuance that is otherwise difficult to capture, such as a general community inclination towards sheltering in place versus going to an emergency shelter.

Supportive Community strengthens regional readiness by formalizing planning relationships with government emergency management partners, developing scenarios and expected resource requirements, providing transparency with partners about resource capabilities and capacities for sheltering, and formalizing commitments[23].

Because Supportive Community is cyclical – conversations with Emergency Management Agency (EMA) partners are repeated and commitments revised annually – it provides ARC with a clear, up to date view of the capabilities (ability to provide service) and capacities (level of service for the given capability with given resources) of both local ARC branches and affiliated jurisdictions.

The scenario planning aspect of Supportive Community is similar to the NHQ prediction modeling of a high likelihood, high consequence event, but on a localized scale. Supportive Community scenarios include event type, affected area, and population in the affected area to predict sheltering needs. As part of the conversations with EMA partners, ARC is able to gain critical information, such as triggers owned by emergency management, such as evacuation notices[24].

[22] [23] Supportive Community Readiness Program Standards and Procedures
[24] Note that in the United States, the decision to evacuate an area is made by the local jurisdiction, not ARC.

Pieces of the Supportive Community model are akin to Early Action Protocols: the identification of key actors, risk analysis, trigger model, and selection of actions are all included in the conversation between EMA and ARC. However, in the United States context, the government owns much of the public-facing activation of emergency response, so the planning for anticipated actions is done in close coordination.

DISASTER RELIEF OPERATIONS

When both planning for and responding to events, ARC follows a highly structured management concept, built after the Incident Command System (ICS). Using this structure, mirrored in many partner agencies working in the disaster response space, ARC can define financing and actions, including aspects that are anticipatory.

I. Projected Operational Cost

Appropriate planning for an Anticipatory Action event involves budgeting for all the costs linked to the activation of an early action plan to include readiness and prepositioning costs. This anterior budgeting exercise accounts for indirect costs and administrative costs of service delivery to ensure that there is a financial foundation ready for an operation to begin. The DCS projected operational cost structure provides a framework ahead of time for an anticipatory response to form quickly along a pre-set levels that determines the kind of budget that will be used.

Projected operational costs are one factor in assessing incident complexity. This is because projected operational costs, as derived from a well-informed Service Delivery Plan, account for many (but not all) of an incident's complexity factors.

Disaster Relief Operation (DRO) numbers are issued for all operations expected to exceed $10,000. DRO numbers are issued to track all operational data, planning products, expenses, and budgets for an operation and are issued according to the financial levels outlined in the Concept of Operations. All Level 3 and above operations are issued under the direction of the Vice President, Disaster Operations & Logistics, or designee[25].

[25] DRO Planning and Reporting Standards and Procedures

In addition to deliberate plans, disaster relief operation (DRO) plans are used once an operation is stood up. These plans and their related materials communicate intent, inform decisions, describe objectives, assign tasks, allocate resources, and guide operations to accomplish a mission. National level operations indicate a significant increase in incident size and complexity requiring greater commitment of resources. The significant influx of workforce, vehicles, and trailers mandate solutions uncommon in other operations: staff shelters, staging areas, mobilization centers, multiple arrival airports across multiple counties, and long driving distances to work sites.

II. Initial Incident Reports

Quality Anticipatory Action requires a "Trigger Activation System" that uses an automated forecast message or set of initial information to alert relevant actors that a trigger has been reached. This is expected to be executed by a national meteorological office or a disaster management authority. The Initial Incident Report (IIR) is a DCS reporting tool that allows a disaster manager to send initial non-forecast-based alert to Red Cross leadership that a larger response may be required. (National meteorological alerts and information sharing are not included in IIR protocols.) This provides DCS with a different kind of activation system to supplement its forecast-based decision-making at national level.

An IIR provides a standard way for a Red Cross region to notify regional, divisional, and national leadership of a locally significant development during an event. The IIR is sent out through ARC's RC Respond system within 2 hours of notification of an incident based on several triggers. IIRs are only sent before a DRO is established, once an operation is stood up, other methods of reporting embedded in the DRO planning guidelines are utilized[26].

[26] DRO Planning and Reporting Standards and Procedures

III. National Support Plan

National Society capacity to deliver on early action plans is a key part of a Forecast based Financing system for Anticipatory Action. To be ready to spend donor dollars, DCS must be able to describe how and where it will expense funds during a scaled operation. The National Support Plan provides a framework for American Red Cross capacity based on evidence from previous operations and workforce management.

The Disaster Cycle Services National Support Plan ensures the sustainable escalation of growing national operations in the continental United States to meet the scale of need. The plan identifies and assigns responsibility for the critical tasks necessary to resource a national DRO in the initiating phase of an operation[27]. This is meant to ensure that responders receive lodging, a supervisor, an assignment, and transportation to a service delivery site or headquarters within 24 hours of arrival, and that equipment (materials and fleet assets) is delivered, verified, and integrated at their point(s) of need. The National Support Plan is activated when the planning assumptions below are present:

- Requiring deployment of a workforce of 500 or more, and/or,
- Requiring deployment of 80 or more vehicles, or
- At the direction of the Vice President, Operations & Logistics.

IV. DRO Categories

In Anticipatory Action, the planning process of selecting early actions involves identifying activities appropriate for the hazard. Early action plans are often developed to be hazard specific and therefore require differentiation between the different types of DRO required. For example, a flooding event caused by heavy rains (FLD) will require different actions than a flood caused by violent windstorms (FLT) or flooding caused by a hurricane (HFL). DCS' DRO Types guide risk mitigation and to prepare effective responses aligned with relevant plans of the state or local authority. In other words, Anticipatory Action should empower communities and humanitarians to act earlier and thus prevent or mitigate impacts before they fully unfold. By escalating a localized flooding response (FLD) to a large-scale wind-related flooding (FLT), the Disaster Relief Operation (DRO or DR framework) is the first step in enabling actions to be taken before the most acute impacts are felt.

[27] National Support Plan

The establishment of a DRO allows for fund allocation, human resource assignments, and material support to be released; it also triggers a standard set of actions and reporting requirements. In addition to the DRO Levels noted in section one above, National Operation Planning, there are also different categories DRs that that may be established. Some DROs are established in anticipation of an event when there is notice or a forecast of an incoming hazard. Pre-emptive DROs are sometimes established for internal funding or staffing reasons. Otherwise, DROs are established to focus on post-impact service delivery. DRO designation is important in part because funding is tied to DRs – there is a predicted budget, and then funds are allocated or raised towards that budget. This DRO budget simplifies the process of moving people and material to support the incident. Annual planning for the organization includes an estimated number of DROs and levels/budget ranges.

The DRs escalated by ARC can fit loosely into 4 categories:

1. **Forecasted DRs:**

These anticipatory events are a type of DRO designed to pre-empt an incident. When a forecast indicates that an event is likely to occur, a Region may work with their Division to create and promote an incident in WebEOC and the DOCC Portal System, both of which are event tracking database systems. These DROs may be established hours or days before the expected event, allowing regions to begin moving people and material around in anticipation of the expected damage and needs. For larger scale Hurricane forecasts, the National team works with expert partners and begins general planning at 168 hours (about 1 week) ahead of the event. At around 96 hours (about 4 days) ahead of an anticipated hurricane, there is an Advanced Operational Plan coordinated for that hazard, which comes with a predicted budget approved by VPOL. To successfully engage disaster finance before the event, “DR numbers” and anticipated levels can be set ahead of time to activate funds. The primary source of funds come from either the operating budget or part of the seasonal readiness budget.

In finance, a temporary account used before an official account is set up is often referred to as a "bridge account" or "interim account." These accounts serve as a stopgap measure to facilitate immediate financial transactions and fund disbursement during the critical early stages of disaster response, when time is of the essence, but formal accounting structures may not yet be in place.

The primary purpose of American Red Cross’ bridge account – associated with what is called DR 222 – is to enable quick financial designations for emergency

response activities, specifically to allow for rapid assignment of essential workforce, and to provide a mechanism for receiving and deploying staff and volunteers. Once the official accounts and financial systems are established, personnel assigned to DR 222 are typically transferred into the permanent financial structure on the operation. DR 222 was created as a holding pen for staff ready to deploy to a forecasted event. It is seen as a standby DR, after which responders are removed from it to be assigned to the actual DRO they're deploying to. There are not any funds assigned to 222, so DCS Finance does not transfer costs or balances from it.It is a holding pen for staff capacity only. Those assigned to 222 have been screened and confirmed their ability to deploy at a moment's notice to support an impending operation. Most often the workforce positions added to DR 222 are Shelter workers. These responders are reassigned out of 222 and to a new DR once the decision is made to deploy the staff. Meanwhile, the costs associated with moving that staffing is accrued under the specific DR's budget.

Seasonal forecasts are also used to determine if a DRO should be created for anticipated events, particularly when there is an above-normal fire potential outlook from the National Interagency Fire Center. In order to sustain the capability to effectively and efficiently initiate and deliver near-continuous mass care services in response to wildfire activity in the Pacific without overwhelming Regional DCS workforce, DROs have been created to encompass all or most fire activity in a defined geographic area for that fire season.

2. Known Long-term Response DRs:

Large events with significant complexity and media attention will sometimes get a DR number pre-assigned (ex: regional hosting the Superbowl/ major civil event). For example, DR 525 is designated for ongoing migrant and border response work: to help alleviate or reduce the impact of migrant surges in South/West Border (SWB) communities, the American Red Cross provides specific, time-limited mass care capacity through strategic integration partnerships (SIP) with government organizations, non-government organizations (NGOs), and faith-based organizations (FBOs) on the SWB aimed at reducing the extent to which our partners are overwhelmed when migrant surges occur. Subject to the availability of resources, the American Red Cross provides similar time-limited support for the decompression of the SWB by providing targeted support to overwhelmed partners in the interior actively involved in receiving migrants during surges.

Another DR was established to execute the Mission & Tasking for all Divisions and Regions over a longer period of time so that another activation of a DRO

would not be necessary for each surge at the border. A modified DRO structure is necessary to carry out this Order and allows divisions an allotment of funds pre-authorized to support this mission.

A DR is often established for large events such as the World Cup, the Solar Eclipse in 2024, and Political conventions; one example of this is DR 805 which was pulled to monitor and support the Democratic National Convention in Chicago in 2024.

3. Sudden Onset DRs:

Sudden onset DRs are when a response grows quickly from a no-notice event and a DR number is established right around the time of the incident or shortly after it takes place. These are staffed and funded through traditional response methods. These sudden onset DRs are the most common type pulled by ARC and account for most of the Single and Multi-family fires across the country.

4. Post-Impact DRs:

Post-Impact DRs are events that are established several days or even weeks after the initial incident which it is not clear at the beginning that operations will exceed $10,000. This is most common for very low-level DROs (usually L2s) when it is unclear if costs exceed the minimum threshold for a DRO, often related to single or multi-family fires.

CASE STUDY: ATLANTIC HURRICANE

An incoming Atlantic hurricane is a good example scenario to outline some of the actions taken ahead of an incoming hazard.

A team with the Situational Awareness and Decision Support (SADS) Unit at ARC National Headquarters monitors hurricane activity and keeps in close contact with partner national weather agencies. This team maintains awareness of pressure systems and potential hazards days before a hurricane forms.

At 168 hours, or 7 days, ahead of an incoming hazard, the SADS Unit is aware of a potential hazard. The judgement on triggering initial actions in response to a

hazard is based on the expertise of members of the SADS Unit and the Vice President of Operations and Logistics. This far ahead of H-hour, NHQ uses the 168 Hour Hurricane Decision Support Tool[28] to begin communicating to impacted Divisions and potentially begin dispatching resources. Landfall prediction is communicated to Divisions in the NHQ 168 Hour Brief, and the national team identifies material resources on standby and assesses operational computer systems for any constraints.

By 144 hours, or 6 days, ahead of H-hour, the SADS Unit has more information about the hazard. The team reviews the hurricane planning scenarios and identifies which scenario to use as the planning assumption based on current information about the incoming hurricane. The affected Divisions are notified of the scenario, including the predicted impacted area and predicted storm intensity. These predictions are made by subject matter experts in the SADS Unit and VPOL. Based on the scenario selected, the predicted H-hour is entered into the 168 Hour Hurricane Decision Support Tool, which then generates specific timing for operational tasks. This includes both early actions, such as moving resources to identified staging areas and securing lodging for the first wave of disaster responders, and post-landfall actions. Based on the scenario used for planning assumptions, the 168 Hour Hurricane Decision Support Tool also includes a prediction of evacuation clearance timing and shelter opening timing.

Depending on the situation, by 120 hours, or 5 days, ahead of H-hour, the organization begins to use the Region-DRO H-120 Hour Timeline[29] to take actions. By 120 hours before H-hour, the team at the SADS Unit now has more information from weather partners about predicted landfall area and intensity of impact. It is possible to trigger actions outlined in the timeline earlier than H-120 depending on information from a Regional Disaster Officer, Division Executive, or VPOL. Situational considerations consider the geography of the area (for example, in areas that may have transportation cut off, the organization has to move people and supplies early to meet the agreed service levels committed to partners), the predicted length of time to evacuate, the capacity of partners to open shelters and move supplies, and the locations of airports and transportation hubs vis-à-vis the predicted landfall area.

The Region-DRO H-120 Hour Timeline includes a page of actions for activities: Command, Operations, Logistics, Workforce, Information and Planning, Finance and Administration, and External Relations. Each activity is divided by time: H-120+ hours, H-96 hours, H-72-48 hours, H-24 hours, and H hour/Landfall.

[28] This is a tool used by NHQ to outline actions only taken by the national teams. It is not published on ARC's intranet.
[29] 120 Hour Hurricane Timeline

Within each time frame, actions are outlined by actor: Region, Division, and DOCC (National).

Beginning at H-120, actions may include: Regions submit staffing requests, Divisions contact State Emergency Management and FEMA to discuss planning assumptions, and the DOCC issues a DRO number. At H-96 hours, Information and Planning teams in the regions have conducted situational assessments to identify gaps and challenges, Division has assigned DRO leadership, and the DOCC has alerted DFSCs to begin loading standard trailer packages. At H-72-48 hours, DRO leadership arrives at the DRO HQ and is added to the timeline as having specific assigned actions. By this time, Divisions and Regions focus on handing information to the DRO leadership and otherwise assume a support role. Moving closer to H-hour, actions are specific to the DRO and focus on worker safety and opening and supporting sheltering operations.

CONCLUSION

In conclusion, the American Red Cross has developed a mainstreamed approach to anticipatory action within its domestic disaster response framework as it pertains to planning. DCS has built in robust forecasting methods, systematic disaster financing, and well-defined protocols. Financing for anticipatory action is integrated into the organization's annual budgeting process for DROs, ensuring consistent funding for readiness activities in the lead up. The American Red Cross utilizes sophisticated hurricane prediction models based on historical data, incorporating factors such as storm formation locations, landfall probabilities, and population centers to forecast service delivery needs. These forecasting models, combined with SOPs for different time intervals before an event, enable the organization to prepare and allocate resources in anticipation of various disaster scenarios.

While the focus appears to be primarily on team readiness and pre-positioning rather than pre-disaster distribution of goods, these standardized procedures enable swift and effective mobilization ahead of impending disasters. The recent five-year vision acknowledges the shift from acute to chronic disaster response and emphasizes the importance of disaster risk reduction and community resilience. As the frequency and impact of disasters continue to evolve, the American Red Cross is adapting its strategies to better serve vulnerable communities and address long-term challenges. Moving forward, there may be opportunities to further explore and enhance implementation

actions during the anticipation window, potentially expanding the scope of pre-disaster interventions to strengthen overall community preparedness and resilience.

KEY INFORMANT INTERVIEWS

- Rick Schofield, Division Disaster Director
- Karl Matzke, Volunteer Partner to Senior Director, Disaster Operations, Readiness and Planning
- Neil Brockway, Senior Director, Community Adaptation Program
- Erica Richardson, Senior Program Manager, Disaster Operations and Logistics
- Kevin Kelley, Senior Director, Community Preparedness Programs
- Peter Grey, National Incident Command Team Director
- Mike Whitehead, Manager, Planning Integration

SOURCES

- FEMA National Risk Index
- DCS Five Year Vision
- CAP Talking Points
- ConOps Executing DROs Summary Tables
- Mass Care Planning Assumptions Spreadsheet
- Determine Mass Care Planning Assumptions
- Supportive Community Readiness Program Standards and Procedures
- National Readiness Target
- ConOps 5.0
- Atlantic Hurricane Planning Scenarios, March 2024
- Emergency App, Advancing a Culture of Inclusivity and Equity through Inclusive Design
- Wildfire Enhancement Emergency App
- Emergency App, Tornado Enhancement
- Spring into Action Recruitment Initiative Toolkit
- FY24 Spring into Action Initiative Job Tool

- Material Resources (trailer contents)
- Resource Management and Readiness
- Be Red Cross Ready Presenter's Guide
- Wildfire Preparedness Educational Visit Toolkit
- Home Fire Campaign/Sound the Alarm Toolkit
- Youth Preparedness Programs
- Emergency App
- Tropical Cyclone Climatology, National Hurricane Center
- Climate Change Indicators: Wildfires, United States Environmental Protection Agency
- National Support Plan
- 120 Hour Hurricane Timeline
- National Operations Summary
- Operations Order 005-24: Pacific Division CONUS Wildfire Response Readiness July-October 2024