Training Development Plan for a Simulation Exercise on Data and Resource Sharing

Jamboard: https://jamboard.google.com/d/14iZO0zINT442EbP2t_IGWAVx4pQZdWf5h_3q2i0qOZq/edit?usp=sharing

Course/Project Title

Accessing and Sharing Data and Training Resources in Real Time to Develop Competency: Practice using commercial rebroadcast (GEONETCast-Americas) and the Internet.

- Does the title match the description or is it misleading?

Overview

A general description of the training required that summarizes the key goals and states why the training is important to accomplish for your organisation or region.

The *Country National Weather Service* Program provides structured training for meteorologist and hydrologist employees. One of the recommended aspects of the training focuses on Satellite Resources: data access, display, analysis, and interpretation. The types of training offered depend on the level of the employee (new, advanced, demonstrating expertise), and focus on a specific area of application (list). The training focuses on data and products that are readily available via existing infrastructure. What does the employee do when the data, products, and resource are not available or are difficult to access via the existing infrastructure or in a scenario when the power goes out? This training exercise highlights the benefits of building a community of practice and interacting with that community to (regularly/seasonally) practice what to do during unusual events. The exercise will take place x times during the year. Participating trainers/organizations will choose the type of event they
want to simulate (an event in which power is or is not available) and will assess what types of
information needed, who needs to be part of the exercise, and how the information will be staged. At
the conclusion of each exercise, a review of the processes and results will be documented and
available for reflection and as a starting point for the succeeding exercise. The exercise aims to
promote repetition, reflection, critical thinking, continuing professional development, and capacity
building, all of which are beneficial to the smooth continuous functioning of operations.

- On its own, is the overview clear? Does the overview convince you (and hopefully the stakeholders) that
  it will be a worthwhile project? Does it seem overly ambitious?
- Is the general overview consistent with the later outcomes described?
- In general, do the elements hold together with the rest of the plan? Is anything left out in what follows?

### Audience Description

*Primary audience for the training, and any secondary audiences, if they will impact any of your decisions*

The assumed current knowledge and skills, or prerequisite knowledge and skills, of the primary audience, and
any other characteristics that will guide your decisions

The primary audience is the operational user with the *Country National Weather Service*. This will
include a range of learners with different educational backgrounds and expertise, and does not
assume extensive experience with satellite image interpretation.

The secondary audience is the end user of the forecast products (managers, emergency managers,
utilities, general public) and tailored to express impacts associated with the significant event.

- Is the audience described clearly enough? Focused enough?
- Are any potential secondary beneficiaries of the training left unconsidered?
- Are prerequisites considered?

### Training Goals

*How the training project is expected to impact the organization/country/region*

The trainer/organization has a responsibility to meet national and international competency
standards. This consolidated training will be used for new forecasters as on-the-job training and as a
searchable resource for continued learning. It will provide a viable alternative option on access to
imagery and products when the standard products are not available. The instructional goal is to
teach concepts and skills on satellite image interpretation, demonstrate best practices, encourage
critical thinking, and give participants hands-on experience in analyzing imagery and delivering an
impact based forecast in an operational context.

- Are these distinct from the needs and outcomes? i.e. are they truly about what is the expected impact to
  the bigger picture goals? These will be important for measuring impact, if it is to be measured.
Learning Needs

Overview of the learning needs at the level of the individual learners, organization, country, or region. Some description of how these were identified and determined as valid needs.

Job competencies to be addressed by the training

Situational Awareness: Identify current practices for real-time and back-up data access, display, analysis, interpretation, and messaging.

- Are these described truly as needs, or just a statement of the subject to be taught?
- Is there any evidence that needs have been analyzed, or are they just assumed? What can be referenced as a source of needs evidence?
- If it is an international course, how have needs been determined?
- Have the needs been defined only by the trainers? If so, what were their considerations?

Learning Outcomes

Desired learning outcomes of the planned event, written in terms of skills that can be assessed. You may want to begin with the statement: “After completing the training, participants will be able to…”

Specific performance improvements desired

<table>
<thead>
<tr>
<th>After completing the training, participants will be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under normal weather situations:</td>
</tr>
<tr>
<td>1) Contact the appropriate VLab trainer to distribute training materials through the GNC-A training channel and post on the VLab youtube channel.</td>
</tr>
<tr>
<td>2) Establish contact with the established network of backup data providers for x types of situations.</td>
</tr>
<tr>
<td>Under unusual event situations:</td>
</tr>
<tr>
<td>Data User:</td>
</tr>
<tr>
<td>1) Receive and process data from the GNC-A station when local power is not available.</td>
</tr>
<tr>
<td>2) Request data and products from the established network of backup data providers to meet usual and unusual data demands</td>
</tr>
<tr>
<td>3) Convey appropriate messages to emergency managers and the general public.</td>
</tr>
<tr>
<td>Data Provider:</td>
</tr>
<tr>
<td>4) Respond to a request to provide data products via the GNC-A distribution.</td>
</tr>
</tbody>
</table>

- Do the learning outcomes describe what learners should be able to do after training?
- If there are outcomes written as “Understanding” or “Appreciate” or “Know” etc., are they at least followed by outcomes describing what learners should be able to do with this understanding, appreciation, or knowledge?
- Are they clear and direct?
- If competencies exist for this area, are they referenced?
Content Scope (Week 1)

Provide a content outline consistent with learning objectives or outcomes. This could be the course outline as it would be presented to students, but not necessarily a complete syllabus.

Include a high level list of all topics you feel are necessary to cover and/or the skills that must be developed. If you think it will help clarification, state what will NOT be covered.

- Is the scope manageable? Or is the trainer taking on too much such that nothing can be covered in any depth with practice?
- Does the scope cover all the outcomes and will it help address the goals and what was described in the overview?

Learning Solutions and Delivery Modes (Week 1)

List the learning solutions (modes of training) used and why you have chosen them. For example: classroom training, online learning, blended learning, on-the-job training, online resources for self-directed learning, coaching or mentoring, etc.

- Are alternative learning solutions at least considered?
- Are the chosen solutions justified?
- Could other solutions contribute to the training goals and learning outcomes?

Learning Strategies (Week 1)

Consider which learning strategies you will use. Provide justification for why you want to use them, including why they will help learners achieve your intended learning outcomes. Consider an appropriate blend of strategies that complement one another. You do not need to describe the actual activities in any detail in this section.

- Are appropriate learning strategies considered? Do they complement one another?
- Are enough strategies considered for variety and multiple ways of learning?
- Are any obviously useful strategies not considered?

Learning Activities (Week 2)

Describe the major learning activities that will be included, including lectures, readings, cases, discussions, exercises, assignments, simulations, role-play, etc.
WMO Resources for Trainers

Describe the roles of trainers and learners during the activities

- Are sufficient active learning approaches being used?
- Are the activities matched to the intended learning outcomes?
- Are the activities described well enough?
- Probe to get a clear picture of the planned activities.

Learning Assessment (Week 2)

Describe your plan for assessing learners before, during, and/or after the course, including tests, exercises, graded activities, and projects or products to be evaluated. Describe the use of self or peer assessment, if used. Show how assessment is linked to the Learning Outcomes.

- Is the assessment plan practical but also rigorous enough?
- Does the assessment link fully to the expected learning outcomes?
- Does the assessment plan use the planned learning activities as at least one basis for assessment and feedback?

Training Storyboard (Week 5)

Use one of the recommended methods to produce a visual storyboard of your blended training event.

- Based on the advice provided in the course resources, and the justifications to decisions documented in this Training Development plan, has an effective blended learning approach been applied?
- Are appropriate learning solutions, delivery modes, learning strategies, and learning activities considered? Do they complement one another?
- Do these choices represent a good variety and multiple ways of learning?
- Are any opportunities missed, based on your evaluation?
- Does the storyboard clearly communicate the blended learning plan?

Learning Resources and Tools (Week 5)
WMO Resources for Trainers

List existing resources you will use for readings or presentations, activities, case studies, data, etc. Describe content resources you will need to search for.

Describe the technologies that will be used to support training development and delivery, including instructional technologies and operational equipment.

- Does this section capture all the resources or tools that might be able to contribute to the training?
- Do you know of any resources available that are being overlooked?

NOTE: The following sections are not assigned. But they will be very useful to complete for your final project plan.

Training Evaluation

Methods you will use to evaluate the effectiveness of your training, including surveys, interviews, post-course feedback, long-term impacts evaluation, etc.

- Is the evaluation at least a little deeper than a simple survey?
- If an extensive evaluation plan is proposed, how practical is it? Can it be accomplished within constraints?

Human Resources

Internal resources: project manager, project lead, content experts, teachers, developers, training support, etc. External resources: primary decision makers, content experts, reviewers, translators, etc.

- Does this section capture all the personnel needed to achieve the training?

Constraints and Risks (Week 5)

List all constraints on the training project. List concerns that could impact project success (risks).

<table>
<thead>
<tr>
<th>Constraints might include:</th>
<th>Risks to the project might include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time available</td>
<td>Unclearly defined requirements or needs</td>
</tr>
</tbody>
</table>
WMO Resources for Trainers

- Budget available
- Number and location of students
- Skills and experience of training staff
- People with content expertise available
- Facilities and technologies available

- Limited existing content resources
- Limited training staff experience
- Large scope or complexity
- New training approaches
- Technology limitations
- Limited training staff availability
- Significant schedule constraints
- Funding risks

- Does the plan show good project management understanding of risks and constraints?
- Probe these if they are not clear.
- Have you noticed any other risks or constraints that are left out here?

Milestones and Schedule (Week 5)

Outline of major milestones (deadlines) with a real or relative timeline (if you do not yet know the start date of the project). Milestones might include those below, or any additional ones pertinent to your effort.

<table>
<thead>
<tr>
<th>Project Plan completed</th>
<th>Assessment plan complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning needs assessed</td>
<td>Scheduling of all human, technical, and facility resources</td>
</tr>
<tr>
<td>Learning outcomes reviewed and approved</td>
<td>Learning resources developed or adapted</td>
</tr>
<tr>
<td>Content outline developed</td>
<td>Training delivered (begin date/end date)</td>
</tr>
<tr>
<td>Learning activities designed</td>
<td>Training evaluation complete</td>
</tr>
</tbody>
</table>

- Is the schedule practical based on your experience and the scope being proposed? Trainers often highly underestimate, and then skip steps or shortchange things like including practice opportunities.
- Are all steps in the process being considered?