Process Description

The needs assessment process includes four phases: planning, collecting data, data analysis, and final report preparation. In the planning phase, the team needs to identify the target audience and the data gathering and analysis strategies to employ. The data collection phase includes preparing the survey and interview instruments and using them to collect data. The analysis phase entails analyzing the data and prioritizing the findings. The last phase is writing a report that outlines the results of the analysis and recommendations for action based on the findings.

The main goal for this needs analysis is to identify the current performance gaps within the forecaster organizations in Region IV. In addition, the team performing the analysis needs to focus on performance gaps in aviation and tropical forecasting. Based on the needs analysis, we can determine the training needs and perhaps identify common needs across all countries in the Region.

To accomplish this a team will need to gather information from the meteorological services of each country and the regional training centers. The optimal situation is for the team to visit with the meteorological organizations of each country and interview managers and forecasters. The team should also visit the training centers and determine their current priorities and resource allocations. If travelling in-person is unavailable, an alternative approach is to mix in-person interviews with online surveys and conference call interviews.

The data from the interviews should be analyzed to determine the training needs of specific countries and potential shared needs across countries. After the analysis a final report can be prepared and shared with the respective regional association.

Questions

General questions for managers of the performers

What specific things would you like the forecasters to do that they are not doing at present?

What undesirable outcomes does this create?

What specific things are the forecasters doing that they should not be doing?

What undesirable outcomes does this create?

When you envision forecasters performing this job properly, what do you see them doing?

What are the outcomes of the desirable performance? (What would this improved performance enable your group to achieve?)

What subject would you like your forecasters to learn more about?

What would you like to learn more about?

General questions for forecasters:

What prevents you from performing a prescribed forecasting task to standards?

Are job aids available and if so, are they accurate? Are they being used?

Are the standards reasonable? If not, why?

If you could change one thing in the way you perform your work, what would it be?

What new tool or technology would benefit you the most in the performance of your work?

Aviation-specific questions for managers

What do you see as the most critical performance issue in aviation forecasting?

What specific things would you like the forecasters to do when they are preparing aviation forecasts that they are not doing at present?

What undesirable outcomes does this performance gap create?

What specific things are the forecasters doing when preparing aviation forecasts that they should not be doing?

What undesirable outcomes does this create?

When you envision forecasters performing aviation forecasts properly, what do you see them doing?

What are the outcomes of the desirable performance?

What subject would you like your forecasters to learn more about? What would you like to learn more about?

Aviation-specific questions for forecasters

What do you find most challenging about preparing aviation forecasts?

What prevents you from creating an aviation forecast that meets current standards?

Are job aids available and if so, are they accurate? Are they being used?

Are the standards reasonable? If not, why?

If you could change one thing in the way you prepare aviation forecasts, what would it be?

What new tool or technology would benefit you the most in the creating aviation forecasts?

Tropical forecast questions for managers

What do you see as the most critical performance issue in tropical forecasting?

What specific things would you like the forecasters to do when they are preparing tropical forecasts that they are not doing at present?

What undesirable outcomes does this performance gap create?

What specific things are the forecasters doing when preparing tropical forecasts that they should not be doing?

What undesirable outcomes does this create?

When you envision forecasters performing tropical forecasts properly, what do you see them doing?

What are the outcomes of the desirable performance?

What tropical subject would you like your forecasters to learn more about? What would you like to learn more about?

More specific questions to consider:

How well do the forecasters predict TC position, intensity, and structure?

How long in advance are forecasters issuing products about flooding, strong winds, storm surge, and tornadoes/waterspouts?

How accurate are the products about flooding, wind, storm surge, and tornadoes/waterspouts in time and space?

How well do forecasters communicate TC hazards to national and local agencies, and the public?

Tropical forecast questions for forecasters

1. What do you find most challenging about preparing tropical forecasts?
   a. the TC position
   b. the TC intensity
   c. the TC structure
   d. issuing flood warnings
   e. issuing wind warnings
   f. issuing storm surge warnings
   g. issuing tornado/waterspout warnings
   h. communicating TC hazards to agencies and public

What prevents you from creating a tropical forecast that is timely and accurate?

Are job aids available and if so, are they accurate? Are they being used?

Are the standards reasonable? If not, why?

If you could change one thing in the way you prepare tropical forecasts, what would it be?

What new tool or technology would benefit you the most in the creating tropical forecasts?

Climate services questions for climatologists

What limitations do you face in providing better climate services?

What types of tools that you currently do not have at your disposal do you consider necessary for providing better services?

Climate services questions for managers

- What tools or facilities do you have at your disposal to develop the ability to provide climate services in your country?
- What training do you consider necessary to develop the ability to provide climate services?

Regional Training Center questions

What are your current top training priorities?

How are you delivering training courses for those priorities?

How many trainers are currently working on these priorities?

How many sessions does each trainer carry out?

How many forecasters have completed the training courses for these priorities?

What are your current training offerings for aviation forecasting?

What are your current training offerings for tropical cyclone forecasting?

Some of the questions above can be used to gather more detail about the aviation and tropical training initiatives.

Demographic questions

What is the average age of the forecasters in the Region?

What is the highest educational degree they have achieved?

Are forecasters very motivated, somewhat motivated, or unmotivated to improve their skills and the services they offer?

What are the prerequisite skills that all forecasters should have?

What is the prerequisite knowledge that all forecaster should have?

How familiar are forecasters with using the internet?

Do they have regular access to computers and the internet?

How many hours per day do they have to dedicate to training and education?

What is their English proficiency?