

## **COUNTERACTING THE HUMAN FACTOR BY MEANS OF FOCUSED SELECTION, ON-BOARD BRIDGE TRAINING AND CHALLENGING OF INGRAINED ATTITUDES**

by

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*The paper describes a running, integrated, hands-on training program for on-board training of bridge teams. The program is managed by a specially trained senior consultant and focuses on improvement of professional skills as well as on bridge management and attitudes, thereby combining navigational and handling skills with behavioral knowledge. The program emphasizes attitudes, motivation and coping potential and integrates training with observation and individual assessment of officers' professional skills and personal capacities. The objectives of the program are: achievement of highest possible safety; modernization of the management style on board; creation of working conditions where navigation officers, under the supervision of the master, will further develop personally and professionally; establishment of a self-improving group to facilitate for the bridge team's further development.*

During the work on this paper I had the fortune to read an inspiring article (Muirhead and Zade, 1994) where the authors advocated the view that the assessment of seafarers should be done as close as possible to the real work situation and that training should be brought closer to the actual job situation.

Although the article merely dealt with assessment and training of professional skills, which certainly is an important task, I should like to widen the area somewhat as I believe that, besides focusing on professional skills, one must also look at the on-board management, the prevailing attitudes (Soerlie, 1994) and also the personalities of the officers.

Together with Expedo Ship Management we have developed a new program and started to work on board their ships in line with a concept based on a

combination of training and assessment, where professional skills are integrated with behavioral and management knowledge.

Besides the obvious emphasis on improving professional skills, such things as attitude, bridge management and leadership are central. The underlying thought is that good skills alone are not enough, they also must come to justice, i.e. the officers' personalities and the attitudes on board are important.

The concepts of personality and attitude overlap somewhat and are not so easily separated. The main distinctions are, however, that personality might be looked upon as the present result of a person's entire development. Attitude, on the other hand, is the more superficial expression of the personality, adjusted to and influenced by the actual circumstances. Furthermore, personality is deeply rooted and reasonably stable, whereas attitudes might be influenced by changes in circumstances, by others and by new experiences.

The management style might be viewed as a form of control over circumstances as well as daily experiences and human surroundings. It is no exaggeration to say that the master's personality, perspective and managerial style have a tremendous impact upon the officers' engagement and attitudes. The same conditions also apply to the managerial relationship between company and master. Hence, the management style is crucial because it creates the boundaries as well as the atmosphere within which the officers' attitudes are formed.

The reason for combining skills, attitudes and management in the training program lies in the fact that they are inexorably linked together. Skills alone might be regarded as quite passive intellectual abilities, and whether a particular person's skills will have an impact or not depends on that person's personality, attitudes, involvement and his subjectively perceived possibilities to act.

Activity may be a result of attitudes like motivation, sense of responsibility, involvement and other feelings. The quality of a person's activity is, however, linked with knowledge.

You might also say that a person's attitude and involvement creates the accessible energy and that intellectual knowledge helps to channel this energy into distinct and rational initiatives and effective actions.

For the above reasons, the training program aims at improving individual officer's skills as well as influencing the management style and, consequently, the attitudes so as to enable the bridge team's combined professional skills to materialize in more involvement and better professional operation. Even a subtle change in attitude can be clearly evident in someone's behavior, not to mention a group's.

As regards desired personality traits for present and prospective officers, I have earlier written (Schager, 1993 a and 1993 b) about the necessity of proper selection of applicants for maritime academies as well as for proper selection of officers for service in the merchant navy. I will here therefore only briefly define what I consider to be a suitable personality.

My definition is a reasonably well adjusted, stable, mature, social, ambitious, energetic and intelligent person and with a somewhat better than average level of clarity of perception, judgment and sense of responsibility and who, furthermore, is more cautious than venturesome.

Because of its integrated nature, the training program for the master and the officers must be run by a specially trained senior consultant and experienced master, a person who is easily accepted by the bridge team. Furthermore, it must be run on board, under normal circumstances where master, officers and crew are operating in conformity with normal procedures. The consultant must, accordingly, join the ship for such a long period that he is able to monitor, assess and train the bridge team both individually and as a group. The time span of the training program will, of course, depend on the travel pattern of the ship but two to three weeks' time is usually sufficient.

It is self-evident that the consultant needs the positive cooperation of the master and to work in close connection with him. This is crucial because the master is the key for the success of the training program. It is not possible to introduce anything new unless the master is willing and co-operative. Nor is

it possible to introduce and succeed in something the master doesn't believe in. It thus takes proper, well-formulated written information from the company and a developed capacity for tact and diplomacy by the consultant in order to establish a good working alliance with the master. The master ought to be convinced that he and his vessel have something to gain from the program.

During the training program the consultant must have some time to become acquainted with the bridge team and to get to know the master and the officers on a more personal basis.

At first he is only able to follow and monitor various bridge procedures and to see that checklists and other instructions are followed. He also checks whether they are comprehensible enough so that they can be understood by the officers, i.e. to make sure that the different written instructions are understood in the same way by all concerned. He is also able to see the distribution of work on the bridge in different situations and to understand the behavioral pattern, the management style, the quality of attitudes and how the various relations are.

Hence, the first couple of days are mostly devoted to mapping the professionalism and the conditions on board and getting to know the bridge team members.

The manner of work on the consultant's part is constant interaction and dialogue with the officers, with hands-on individual informal training as well as more formal lessons when appropriate.

The consultant spends lots of time on the bridge together with the officer on watch. In that way he is able to observe, assess and get acquainted with the capacity of all bridge team members. After an ordinary watch, he is able to train each officer approximately two hours a day under normal conditions and the master somewhat more.

The manner of observation simultaneously concerns content as well as process, i.e. *what* the bridge team is communicating or working with and *how*

they are doing it. In other words, both actual tasks and attitudes, cooperation and management at the same time.

The object of the training program is to improve safety. A further object is to facilitate for the bridge team to act as a self-improving organization in the future.

Below is a more detailed description of the program for Expedo Ship Management who have decided to run the training program on all their ships, one Panmax Bulker and eight tankers, of which two are new Double-Hull VLCCs.

The combined observations, assessments and training during the program are particularly focused on:

### **Assessing and Training of Professional Skills Individually within the Bridge Team.**

- By monitoring the work of each team member in order to decide the level of competence, the capacity in present rank, the capacity for further advancement and to identify possible professional shortcomings or inadequate knowledge.
- By assessing each bridge team member's capacity for judgment, vigilance, capacity for anticipating problems, capacity to withstand strain, personal stability and self-discipline, as well as ability to cooperate.

### **Assessment and Training in Bridge and Safety Routines**

- The master's ability to manage the bridge operation, to follow up and to monitor the work and his capacity to stay in control.
- The effectiveness in work and communication on bridge.
- The master's capacity in monitoring various routines and his ability to see to that checklists and other written or verbal instructions are

correct and followed.

- The handing over of the watch and the use of special checklists and master's standing orders.
- Assessing the clarity of various situations, e.g. who is in command and what different duties people have on the bridge when there is an officer on watch and the master at the bridge at the same time.
- The setting up of effective Passage Plans covering berth to berth.
- That the Rules of the Road are followed to the letter.

### **Assessing and Training of Handling Skills of Equipment, Ship-Handling, Navigation etc.**

- By observing the individual's personal handling of different apparatuses on the bridge as well as making certain that everyone is aware of the vessel's maneuvering characteristics in various sea conditions and other situations.
- By monitoring the individual's handling of all modern equipment as well as the ability to use older such as visual bearings, echo sounder etc.
- By use of written evaluation test for navigation and OOW software for training and evaluation.

### **Assessing and Training of the Master's Bridge Management**

- By observation of the master's management ability and style on the bridge.
- By assessing the master's capacity to judge the officers' skills and personalities and his ability to make the most of everyone.
- By appraisal of the master's ability to foster an open attitude among

bridge team members and his ability to create a favorable atmosphere and to maintain good working discipline.

- And by taking into account the following:
  - The master's pedagogical skills and his willingness to communicate with others and to share experience, judgment and decisions.
  - The organization on the bridge, the distribution of work, the master's consistency and ability to delegate.
  - The master's ability for planning and his style of coping with various leadership and professional tasks.

### **Assessment and Training of the Safety Management**

- Senior officers', particularly the master's, ability to manage the safety work on board under normal circumstances as well as during safety exercises.
- The master's ability to involve all officers, engineers and crew members in safety matters and maintenance of safety equipment.

### **Assessment and Training of Crew Management**

- The master's and officers' ability to manage the entire crew during normal circumstances as well as under exercises and in port.
- Senior officers' ability and interest to understand, respect and adapt to various cultural characteristics on board.
- The master's ability to create good and healthy working conditions on board and the ability to maintain good discipline and morale.

### **Assessment and Training in Pilot Management**

- The master's capacity to stay in control when the pilot is on board and, if necessary, to disregard the pilot's instructions.

- The bridge team's vigilance when monitoring the pilot's work.
- The route planning together with the pilot and master's capacity to give clear instructions and to place proper demands on the pilot as well as the master's ability to get all information from the pilot before going to work.
- The master's and senior officers' ability to maintain a healthy level of self-confidence when the pilot and other officials are on board.
- The capacity of the bridge team to accept the pilot as an adviser and as a temporary bridge team member.

#### **Individual Assessment of Senior Officers' Personality and Attitudes.**

- Individual written assessment by use of Masterline, which means assessment of attitudes towards important segments of life, intellectual structure, level of involvement, engagement, motivation, capacity for coping and initiative as well as style in leadership.
- Assessment of each senior officer's ambitions and acclimatization on board and with company.
- Identification of environmental or managerial conditions which might hamper the individual's personal and professional development.

#### **Individual Feedback and Suggestions for Further Professional and Personal Development**

- Personal feedback to senior officers concerning observations and the information from the Masterline assessment together with suggestions for further professional improvement and personal development.

This feedback is intended as a support and is given in a diplomatic

yet straightforward manner.

### **Feedback to the Master**

- Feedback to and penetrating discussions with the master concerning his management and leadership style with suggestions for alternatives and improvement.
- Some feedback concerning the appraisal of his officers, their professional levels and individual capacities.
- Suggestions concerning further individual training on board under his responsibility.

### **Final Report and Suggestions to the Company**

- Written and oral feedback to the company concerning all items above.
- Special written feedback on the individual Masterline assessments.
- Suggestions for further training or training programs and also concerning the suitable professional working level for each senior officer and possible future advancement.
- Suggestions concerning company management, instructions, policies, aids and equipment.
- Suggestions concerning improvements in strategies for recruitment and selection.

### **Improvement of Selection**

For Expedo Ship Management we are also implementing Masterline and advanced interview training for recruitment officers as tools for improved selection of applicants.

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As demonstrated by the combined content-process approach, there is a heavy emphasis on the role of the master and his managerial style. By conducting the training this way we are able to demonstrate the consequences, both good and bad, of a certain leadership style and also to point out alternatives.

While conducting the training we are well aware that the managerial style on board ships is generally formed by long tradition. The shipping industry has, traditionally, being extremely skillful at continuing their operation undisturbed by the fact that substantial parts of officers and crew have been rotated while the ship is in port. In order to accomplish this, there has been a tendency over the years to look upon seafarers as merely roles, not persons. The newcomer was formerly expected to fit as smoothly as possible into an existing and well-defined role, while his actual personality and characteristics attracted a minimum of attention (Aubert, 1968).

These attitudes had, of course, an important impact upon the managerial style as well as negative consequences for how a seafarer perceived himself and formed his attitudes towards the ship and the company. Because of being impersonalized, he came to look upon the company, his ship and workmates without emotional attachment or personal loyalty (Schager, 1977).

Nowadays when shipowners strive to keep skillful seagoing personnel within the company and to further invest in them professionally as well as personally, the reminiscences of the old traditional leadership style on board must change. By working intensively with attitudes on board we are trying to change the traditional way of looking at things and to modernize the management. Here, of course, we are profiting from our experiences from ordinary industry where there has been a longer tradition of retaining and further developing high-capacity personnel.

Parallel to this there are, of course, the serious shipowners' ambitions of attracting resourceful and experienced seafarers and to have future advantage of their own invested capital in training.

By focusing on attitudes and managerial style we have been able to influence bridge teams in such a way that they drift from a somewhat more static organization to a more dynamic one. The objective from the consultant's part

is, of course, that the organizations will profit from the training program and that they will be able to work even more professionally and with greater safety.

But the true results of a successful program appear first and foremost over some span of time. This occurs when the program becomes the starting point in a process in which the bridge team will go on, interactively developing themselves under the responsibility of the master.

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