System for measuring of safety culture in the field of load control

Characteristic	Indicator	Statement	Pat.*	R.	C.	Pr.	G.
Commitment	Management commitment	Safety is the highest priority for management.					
	Personal commitment	Safety is the highest priority for employees.					
	Prioritization	Safety has the highest priority in the company.					
		The company is willing to invest in safety.					
		Safety audits are conducted on regular basis.					
Behaviour	Employee behaviour with respect to safety	LCA understand the importance of safety.					
		LCA act in accordance with safety.					
		Unacceptable and hazardous behaviour is clearly defined.					
		Roles and responsibilities regarding safety are clearly defined.					
	Job satisfaction and workplace atmosphere	The atmosphere at the workplace is positive.					
		The workload is same for every LCA.					
		LCA feel motivated at the work.					
		LCA cooperate between each other.					
		LCA can handle the stress situations.					
	The manager-employee relationship	LCA trust the managers.					
		Managers trust the LCA.					
		Managers encourage LCA to report unsafe behaviour.					
	Adequate equipment	LCA work with adequate equipment and systems for loading of aircraft.					
		Manuals are updated on regular basis.					
Awareness	Risk awareness	The acceptable and unacceptable risks are clearly defined.					
		LCA are aware of risks connected to sending incorrect Load sheet and incorrect loading.					
	Attitude towards safety and risks	LCA have positive approach to safety					
		The performance of LCA is not hazardous.					
		Safety performance is carefully monitored.					
Information	Safety reporting system	LCA know about the possibilities of reporting systems.					
		Reporting systems are easily available to all agents.					
		Reporting systems consists of formal and informal systems.					
		Reporting systems are confidential.					

Information	Reporting	LCA are willing to report their mistakes.					
		The number of collected safety reports is adequate to the size and scope of the organization´s operations.					
		LCA are not penalized for submitting of reports.					
	Availability of information	The results of investigations are available for all LCA.					
	Communication	The LCA have correct communication channels and they know how to use them.					
		The communication between other departments is clear.					
	Training and education	The training provides all information about safety relevant issues.					
		Training provides all information about weight and trim critical flights.					
		LCA have sufficient training for all aircrafts types.					
	Feedback	LCA are getting feedback on regular basis.					
		Feedback is confidential.					
Adaptability	Proactivity to prevent negative events	LCA act proactively in order to prevent unsafe behaviour.					
		LCA use handbooks in the case of uncertainty.					
		LCA are willing to ask supervisors for help in the case of uncertainty.					
		LCA are rewarded for safe behaviour.					
	Measures related to negative events	Investigations are performed to identify root causes and make recommendations.					
		Safety audits and measurement are conducted on regular basis.					
	Employee contribution	LCA are improving their knowledge about safety relevant issues.					
		LCA help each other in order to prevent unsafe behavior.					
		LCA acts proactively in relation to safety.					
		LCA report potential hazardous risks.					
Justness	Assessment of safety-related behaviour	There is a line between safe and hazardous behaviour.					
	Perception of responsibility	The responsibility is shared within the company between employees on every level.					
	Perception of human error	Human error is seen as the starting point for further investigation.					
		Human error is seen as opportunity how to improve safety.					

* Pat. – pathological level, R. – reactive level, C – calculative level, Pr. – Proactive level, G. – Generative level. LCA – Load Control Agent

Hudson´s safety culture maturity model adjusted to the field of load control

Commitment

	Pathological	Reactive	Calculative	Proactive	Generative
Commitment	• No visible and perceptible commitment.	• The commitment is defined only in terms of compliance with rules, procedures and technical inspections.	• Commitment is not visibly practiced, it is strengthened only after the event, never before. • The commitment is manifested only in the presence of auditors.	• Honest commitment from management and agents. • Safety is step by step becoming a priority.	• The commitment of management, supervisors and agents is visible and perceptible. • Safety is a priority for every employee, regardless of position.
Commitment of managers	• Management does not demonstrate a commitment in any form. • Refusing of responsibility blaming of agents.	• Managers believe that they supervisors are responsible for sending out incorrect load sheets, because they supervise the load control agents.	• Management encourages agents to report after events and when there is external pressure.	• Management tries to continually improve and reduce the number of reports of incorrect documentation. • Management understands that exist circumstances, which cause sending incorrect documentation and that cannot be avoided.	• Management constantly encourages agents to report safety issues and potential risks. • Management does not blame agents. • Management understands the complexity of systems.
Commitment of agents	• Safety is not a priority for agents. • Agents prioritize not causing flight delays regardless of whether the aircraft is properly loaded or not.	• Agents have a basic awareness of safety, but safety is not a priority. • Agents try to send the correct load sheet, but still prioritize not causing a flight delay.	• Agents have a general awareness of safety, but safety is not a priority for them. • The commitment is consolidated after incidents. • Agents try not to cause flight delays and try to adjust to the circumstances, so that the load sheet is sent correctly.	• Safety is a priority for agents. • Agents try not to cause aircraft delays. • There exist management errors that affect the correct submission of documentation.	• Safety is a priority for all agents. • Agents do everything to make safety a top priority despite causing aircraft delays.

Prioritization of safety	• No investment in incident detection. • No internal audits. • Audits are performed only on an external initiative. • The number of errors is small and does not match the size of the organization. • Reporting is not supported and there is no remuneration system.	• Minimal investment in investigating the causes of accidents. • Avoiding internal audits due to financial aspects. • Incident detection based on external sources. • The number of reported incidents does not match the size of the organization. • Without a remuneration system.	• Efforts to increase safety, limited sources for improvement. • Responding to events that happened in past. • Use of basic surveys among load control agents. • The organization provides basic safety management. • A basic plan to improve safety and reduce the risk of incorrectly submitted documentation.	• Continuous improvement in safety, reduction of the number of incorrectly sent documentation. • Audits and measurements to determine the level of safety in regular intervals. • Observation of a wide range of factors. • Mistakes in sending Load sheets are sporadic because not all processes are understood by agents. • Weaknesses in safety management. • A simple system for rewarding employees.	• Continuous improvement despite mature safety culture. • Regular audits and safety measurements. • Minimum mistakes in sending load sheets. • Unlimited sources to increase safety. • A reward system for demonstrating positive safety behavior and for reporting incorrectly submitted documentation.

Behavior

	Pathological	Reactive	Calculative	Proactive	Generative
Relationship of agents with regarding to safety	• Load control agents do not pay attention to the importance of correctly completed documentation. • Load control agents do not understand the importance and meaning of safety.	• Most of load control agents do not understand why it is necessary to maintain safety and send the correct documentation.	• Load control agents perceive safety only after an incident has occurred.	• Load control agents act proactively in relation to safety.	• Load control agents act proactively and it is clear from their actions that safety is a priority. • Efforts to prevent negative events.
Satisfaction with work and working atmosphere	• Negative atmosphere at the workplace. • Load control agents do not cooperate with each other. • Mistrust between agents and managers. • Fear of job loss and financial penalties. • Working pressure on individuals. • Unevenly distributed workload. • No motivation.	• Tense atmosphere at the workplace. • Most agents do not cooperate with each other. • Uncertainty between managers and agents. • The workload is not evenly distributed. • Working pressure on individuals. • Lack of motivation.	• Relaxed atmosphere at the workplace. • Agents are able to help colleagues only when absolutely necessary, their actions are not based on proactivity • Load control agents still do not cooperate with each other, they must be asked for help. • Cooperation and confrontation occurs only when there is no other way. • Agents share only the most necessary information about problem flights.	• Positive atmosphere at the workplace. • Cooperation between agents, sharing knowledge about problem flights. • The workload is distributed appropriately, but problem flights are still distributed randomly.	• Positive atmosphere at the workplace. • Cooperation between agents, sharing knowledge about problem flights. • The workload is distributed equally. • Smooth communication between managers, supervisors and agents. • Agents enjoy their work and are motivated.

Relation agent – manager	• There is mistrust between agents and managers. • Managers are threatening to lose their jobs. • Agents are afraid of reporting. • Managers do not provide feedback to agents.	• There is mistrust between agents and managers. • Fear of reporting prevails. • Managers do not encourage agents.	• There is partial trust between managers and agents. • Agents can rely on managers and supervisors only in the most difficult situations and usually after an event.	• Open communication about problems. • Management encourages agents. • There is trust between agents and supervisors, as well as managers.	• There is respect and trust between agents and managers. • Agents are not afraid to report their mistakes. • Management encourages employees to openly confront any problem or potential risk.
Adequate equipment	• Agents do not work with appropriate systems and tools. • Manuals for individual aircraft types are not updated on a regular basis.	• Agents do not work with appropriate systems. • Manuals are not updated on a regular basis.	• Manuals are updated only after events.	• Agents work with compatible systems. • Manuals are updated on a regular basis.	• Agents have all the newest systems available. • Manuals are updated regularly and agents are informed about these updates.

Awareness

	Pathological	Reactive	Calculative	Proactive	Generative
Risk awareness	• Agents believe that there is no need to improve and safety reached sufficient level. • Agents do not deal with problems and risks that gradually arise. • Agents do not report emerging risks in the field of Load Control.	• Agents do not deal with problems and risks that gradually arise. • Agents do not report emerging risks in the field of Load Control.	• Agents are beginning to perceive that there is a risk of improperly loaded aircraft that affects safety.	• Agents are aware that their performance affects the safety of passengers on board.	• Agents are aware that their performance affects the safety of passengers on board. • Agents also report potential threats they have not previously encountered in the field of Load Control.
Attitude towards safety and risks	• It is not clear to the agent that a poorly balanced aircraft affects the flight characteristics and performance of the aircraft at all stages of the flight. • Agents do not perceive sending an incorrectly loaded aircraft or incorrect documentation as a mistake. • Agents do not understand the difference between hazard and safety.	• Most agents and managers do not understand that improper balanced aircraft can affect the safety of passengers on board. • Some agents are beginning to realize the difference between a properly loaded and an incorrectly loaded aircraft.	• It is not clear to everyone that an incorrectly balanced aircraft can affect flight and passenger safety. • Agents think about the differences between hazard and safety only after events.	• Hazardous behavior is not supported by agents or managers. • Agents understand the differences between hazard and safety. • Unintentional sending of incorrect documentation is understood as a management error.	• There is a line between safe behavior and hazardous behavior in an organization. • Agents understand these differences between safety and hazard.

Information

	Pathological	Reactive	Calculative	Proactive	Generative
Availabity of information	• Unavailability of information. • Information is not shared by the organization.	• Unavailability of information.	• Sharing information after an event or on an external stimulus.	• Safety information is easily accessible and shared across the organization.	• Safety information is easily accessible and shared across the organization.
Communication	• Communication is not effective. • There is a lack of trust between managers and employees.	• Communication between agents and managers is not smooth and efficient. • Communication takes place only on an external stimulus.	• Managers and agents communicate with each other, but no emphasis is placed on whether this communication is effective and whether the agents understand its meaning. • Communication is bound only to events that have occurred.	• Smooth, efficient and open communication based on trust.	• Communication is smooth and effective, based on trust. • Managers communicate with agents about their mistakes and agents receive regular feedback.
Safety reporting system	• Unavailability of reporting systems. • Insufficient reporting systems. • Systems without protecting the identity of the reporting agent. • Systems without a voluntary reporting system.	• Insufficient reporting systems. • Without protecting the identity of the reporting agent.	• The systems are sufficient and available to all agents. • Systems are mainly used after an accident. • There is a voluntary reporting system.	• System availability. • Protected identity of the agent. • With voluntary reporting system. • Proactive use in all circumstances.	• Available to all agents regardless of license. • Agents know about reporting systems. • Protected identity of the agent. • With voluntary reporting system.

Reports	• Employees do not report safety-related actions. • Fear of reporting prevails. • Reports are not taken into account. • Safety reports are not used to suggest safety improvements. • The number of reports is disproportionately small and does not correspond to the size and nature of the organization. • Incorrect load sheet reports are filled, only when absolutely necessary (when detected by other personnel if an incident occurs).	• Employees occasionally report safety-related actions, but in most cases, mistrust of managers persists. • Agents do not report potential risks, only occasional sending of incorrect load sheets. • In most cases, agents do not report, so it is not possible to determine the reasons for sending an incorrect load sheet. • The number of reports does not match the size and nature of the organization. • There are only a few agents in the organization who report incorrectly submitted documentation.	• Agents do not report any potential threats, they only report threats that are well known to them. • Agents report sending an incorrect load sheet or balanced aircraft only after this problem occurs. • Safety reports identify problems with processes, procedures, and equipment. • Confidence in the reporting system is based on the number of reports and not necessarily on the quality and content of the reports.	• The number of reports corresponds to the size and nature of the organization. • Agents are motivated to report and are praised for each report. • Agents report proactively. • Agent reports help increase security. • Investigation results are available to all agents and help uncover hidden factors.	• Agents are motivated to report because they understand that this is the only way to improve safety. • Employees are praised for each report. • There is a way to reward these reports. • The number of reports corresponds to the size and nature of the organization. • Agents are not penalized for reporting incidents. • Agent reports help increase safety in the overall aircraft handling system. • Investigation results are available to all agents.

Training and education	• Without sufficient information about events related to safety. • Lack of information on how to act in case the agent has to solve several problem flights at once. • No information on all aircraft types. • No information on how to report incorrectly submitted documentation. • Lack of information on how to set priorities for solving problems with flights.	• The training provides basic information about safety-related events. • Limiting information on individual aircraft types. • The training agent receives only basic information about reporting, but in the workplace he either cannot use these systems or he still has a feeling of distrust and helplessness.	• The training provides basic information about safety-related events. • All information about individual aircraft types. • Adding knowledge to the training only on an external stimulus or after events.	• Training provides all information about safety-related events. • All information about individual aircraft types. • Included preparation for stressful situations in case of work overload. • Continuous improvement with the latest knowledge in the field of Load Control.	• Training provides all information about safety-related events. • All information about individual aircraft types. • Included preparation for stressful situations in case of work overload. • Continuous improvement. • Individual approach to agents.
Feedback	• Agents do not receive feedback on reported events.	• Agents only receive feedback if managers are forced to do so under external pressure. • Agents receive feedback only if an incident occurs	• Agents receive feedback only if an incident occurs. • Agents participate in simple surveys on completing the correct documentation.	• Agents receive feedback on a regular basis. • Agents can comment on this feedback and familiarize themselves with the correct procedure and solutions. • Feedback also covers events that have been handled correctly.	• Agents receive feedback on a regular basis. • The agent may comment on the problem and familiarize himself with the correct procedure and solutions. • Feedback is confidential, but at the same time, investigations of individual errors are available to all agents.

Adaptability

	Pathological	Reactive	Calculative	Proactive	Generative
Proactivity to prevent events	• The organization is literally waiting for an incident or accident. • No proactive action. • Agents do not act proactively. • No cooperation with more experienced colleagues. • Trying to cover up ignorance.	• Waiting for an event, acting after it. • No effort to improve. • No proactive action.	• Attempt to act and improve after the event, never before. • Verification of knowledge after events. • Reports of incorrect documentation only in the most necessary cases, when it cannot be longer covered that an error has occurred.	• Proactive action. • Verification of knowledge through manuals and consultations with supervisors. • Striving for improvement.	• Proactive action. • Active use of manuals. • Constant communication with supervisors. • Continuous improvement of knowledge and skills. • Mutual assistance in the prevention of dangerous and hazardous practices. • Striving for perfection.
Measures regarding to the events	• An investigation of an incorrectly loaded aircraft is not performed. • Trying to cover up mistakes and ignorance.	• The investigation is not in progress.	• Investigation of events after they occur. • No recommendations on how to avoid these events.	• Event investigations. • Issuing recommendations for agent how to prevent dangerous situations.	• Event investigations. • Issuing recommendations. • Improving training for agents how to avoid dangerous situations in the future.
Employee contribution	• Negative approach to performing position of load agent. • No cooperation. • No use of manuals. • No effort to improve.	• No active attitude. • Collaboration after events. • Occasional use of manuals after events.	• Neutral atmosphere. • Active action after events. • Cooperation in the most urgent cases. • Verification of knowledge after events.	• Proactive action. • Cooperation. • Using manuals.	• Proactive action. • Cooperation. • Using manuals. • Avoiding mistakes. • Foreseeing of events. • Striving for perfection.

Justness

	Pathological	Reactive	Calculative	Proactive	Generative
Assessment of safety-related behavior	• Agents are reprimanded for incorrectly submitted documentation. • There is a threat of job loss and pay cuts.	• Management rewards only occasionally significant safety behavior. • Only the most serious safety issues are addressed.	• Management is step by step beginning to recognize safe behavior. • Only significant safety actions are rewarded. • Less serious events are overlooked and not considered as a threat.	• Agents are not penalized for sending incorrect documentation.	• Agents are not penalized for sending incorrect documentation. • There is a system of evaluation and remuneration in the organization.
Perception of responsibility	• Responsibility is not shared. • Individuals are charged with sending incorrectly completed documentation.	• Responsibility is not shared, but some managers are beginning to realize its importance. • Blaming of individuals persists.	• Responsibility is shared only after an accident, never before. • Management blames supervisors.	• Responsibility for submitting incorrect documentation is shared. • Management understands that in certain situations, individual agents are unable to prevent errors and are therefore not blamed.	• Responsibility in the organization is divided at all levels, from agents to managers. • All agents understand that responsibility is shared and are therefore not afraid of reporting events.
Perception of human error	• The human factor is understood as the cause, as a faulty element in the system. • Organizational factors are not taken into account. • The performance of the organization is not viewed comprehensively.	• The human factor is still perceived as a faulty element in the system. • Organizational factors and the complexity of the system are not taken into account.	• The human factor is still perceived as a faulty element in the system. • Organizational factors are taken into account only after an accident.	• Human error is perceived as the result of incorrect process control. • Failure to perform a job will be considered a management failure and not an individual failure.	• The agent is perceived as an element that contributes to maintaining safety. • Human error is seen as an opportunity to increase safety and as a starting point for further investigation and investigation of causes.