INTRODUCTION

This paper is an early report of an ESRC-funded comparative study of port-state enforcement of international regulations on seafarers’ health and safety. The study involves the shadowing of inspectors on their ship inspections in the UK, India and Russia, plus interviews with inspectors and key industry stakeholders in the three countries, and involves collaboration between Cardiff University, the Russian Academy of Sciences in St Petersburg, the Tata Institute of Social Sciences in Mumbai and the International Labour Office in Geneva. However, the comparative analysis will not be complete until April 2004 and this paper simply provides an early report on the UK data.

The idea for this study grew out of the attendance of Tony Lane and myself at the 29th meeting of the Joint Maritime Commission (JMC) at the ILO in Geneva in January 2001 which launched ‘The Geneva Accord’, the resolution to consolidate into a single convention all the various operative ILO regulations on seafaring, some of them stretching back to the inter-war period. Without in any way wishing to detract from the great worth of this task of consolidation, it was evident to me at Geneva that almost everyone attending that meeting believed that the main problems of global governance in the shipping industry lay not in inadequate regulation, but in inadequate enforcement. SIRC provided the background research papers for that Geneva meeting (ILO, 2001); it is hoped that, once the work of consolidation of the conventions is complete, the JMC may consider anew the problems of enforcement and that these findings will provide some background information to assist in this task. Certainly it is the case up to now that the practice of port-state control has received hardly any research attention, with Hawkins’s (1999) interview study of practice in the Asia Pacific Region providing the only comparative data.
METHODS

Following some pilot work, the main study has involved shadowing 33 ship inspections spread over a seven month period, conducted by 12 different inspectors working in two different Marine Offices, those offices between them being responsible for around 270 port-state inspections per year. The ship inspections embraced a wide spectrum of ship types – oil tankers, product tankers, specialist and general cargo ships and bulk carriers – and were conducted in nine different ports. No principles of selection were involved in the shadowing process: I attended all the inspections occurring on the days on which I was free for fieldwork and when an inspector was free from other duties to conduct inspections. Comparison of the ‘shadowed’ ships with records of other inspections in the two offices in the same period revealed no important differences, save that detained ships (in total five) were slightly over-represented in the shadowed group. I have also shadowed a port health inspector, a Seafarers Mission worker and an ITF inspector on their ship visits. And I have conducted interviews with inspectors and various key industry stakeholders with particular perspectives on port-state control – ship operators, national and international regulators, a ships agent, union officials, and a P&I club manager.

THE CASE AGAINST PORT-STATE CONTROL

Among some ship operators there is a perception that port-state control is a Frankenstein’s Monster, created by the regulatory authorities with the best of intentions but now rampant out of control. There is a belief that port-state control has served its purpose: it is claimed that the sub-standard ships have disappeared from the major ports. Now, port-state control is viewed simply a cost-burden on operators, requiring a major effort by ship operators, agents and crew to rectify at short notice seemingly minor deficiencies in documentation and equipment, listed by inspectors but actually of little import to the safe operation of the ship or the health of seafarers. There is also a perception that the targeting system of the Paris Memorandum of Understanding on Port State Control (Paris MoU) has itself ratcheted up standards, as operators switch away from flags and class societies with high target factors and thus come under the influence of responsible flag-state auditors and class surveyors who
will act to improve ship safety standards (J. Hawkins 1999 has suggested a similar process of flag-change in the Asia Pacific Region). Moreover, the trend of regulation in other industries has been for inspection to concentrate increasingly on ‘process’ rather than ‘kit’: for workplaces to have to demonstrate that they have their own, company-specific, operational, safety systems in place. Applying this trend to the shipping industry would imply that inspectors should simply confine themselves to ensuring that functioning International Safety Management (ISM) systems were in place.

Nevertheless, despite these beliefs about improving standards, the fact is that sub-standard ships ARE still trading in and out of the major ports. Here is just one example out of several I documented in the course of the study. The m/v Panagia Odigitria was inspected and detained for seven days at a UK port on 17/12/02, while discharging a cargo of South African coal. This bulker was gwt 46,000, built in 1984, Greek-operated, Marshall Islands-flagged, DNV-classed, with 21 crew of six nationalities, the senior officers being Ukrainians. The ratings had not been paid since joining the ship nearly four months previously and five of them had jumped ship leaving a note of complaint saying ‘this is a very bad ship’. The inspectors listed 42 deficiencies in an inspection report that ran to nine pages, including radio-equipment deficiencies, safety equipment deficiencies, deficiencies in documentation, in accommodation and in provisioning. In respect of ILO conventions, we can particularly note that there appeared to be insufficient food to get them to their next destination (Egypt), they were almost out of soap, the towels could be torn apart with one’s bare hands, there was insufficient bedding and bed linen, there were broken showers, broken WCs and broken wash-hand basins; some of the crew had set up their own do-it-yourself galley in one of the crew cabins with a couple of home-made hotplates.

So sub-standard ships are still with us – ships deficient in respect of labour standards and health and safety standards, as well as deficient in terms of structure and equipment. It’s possible to argue that the fact that these sub-standard ships are still coming into major ports indicates that port-state control is not operating effectively. The cost of detention, we should recall, is very considerable: one ship detained in the UK last year for 18 weeks was thought to have cost the operator at least £100,000.
These costs are such that one is forced to conclude, either that a significant percentage of ship operators have no idea how bad their ships are, or that a significant percentage of ship operators believe that the chance of deficiencies being detected by port-state inspectors is minimal. Thus, we have now a second argument about the ineffectiveness of port-state control. It is not just a Frankenstein’s Monster, pursuing trivia. It’s also failing in its job of eliminating sub-standard ships, since sub-standard ships like the Panagia Odigitria are still with us.

However, this claim about the ineffectiveness of port-state control, if not false, at least has to be highly qualified for two reasons. In the first place, in respect of seafarers’ health and safety standards, I believe that important aspects of seafarers’ health and safety are inadequately regulated. In other words, there is a regulatory deficit, not an enforcement deficit: I propose to illustrate this point later in the paper with reference to seafarer fatigue. And the second qualification to the argument about the ineffectiveness of port-State control, lies in the fact that the very evidence I’m using to illustrate the continuing existence of sub-standard shipping is itself derived from a seemingly comprehensive and successful port-state inspection. We know that SOME inspectors are detecting SOME sub-standard shipping. This implies that the detection rate for sub-standard ships needs to higher. If we accept this argument (and I have already mentioned the qualification that the regulations themselves may be inadequate), then to what might one attribute the seemingly deficient detection rate? Three possible causes can be suggested: firstly, there may be inadequate port-state control resources; secondly, there may be inadequate targeting of those resources; and thirdly, there may be inconsistencies in inspection practice – some inspectors may be more effective than others.

RESOURCES AND TARGETING

These two issues need to be dealt with together, since effective targeting can compensate for limited resources. Port-State control is not a revenue-earner (although maritime administrations may charge for return visits to lift a detention order) and so resources are always likely to be limited. Some national maritime administrations have dedicated PSCOs (port-State control officers), while others including the UK’s
Maritime & Coastguard Agency, operate a generic inspectorate in which the same pool of inspectors may act on different days as PSCOs, or flag-State auditors, or maritime examiners of seafarer candidates for various certificates of competency\textsuperscript{1}. A generic inspectorate clearly carries advantages in terms of flexibility of response to changing conditions.

All Member States of the Paris Memorandum of Understanding on Port-State Control (that is, most of the maritime European countries – including the UK – and Canada) must undertake to inspect, per annum, a minimum 25% of foreign flagged ships visiting home ports. But France failed to hit this target, only managing to inspect 16% of foreign ships in 2002 and 10% in 2001 (Paris MoU, 2002, 2003). In a global industry, the failure of one major maritime administration to hit inspection targets will have a deleterious global impact on shipping standards.

Furthermore, all Paris MoU countries are committed to a common methodology of inspection, whereby certain ships are prioritised for inspection by being allocated a high ‘target factor’ score. Naturally, ships which had deficiencies at their last inspection will have a higher target factor. Other factors contributing to a high target factor include the ship’s flag and class: flag-states (such as Cambodia) and class societies (such as the Albanian class society) which have had poor inspection records in the past carry a higher target factor. The Paris MoU targeting system is meant to shape the behaviour of maritime administrations, of industry stakeholders, and of individual operators and crew. For the national maritime administrations, high target ships carry a load factor, relative to low target ships, so that national administrations reach their 25% target more quickly with fewer inspections, if they concentrate their inspections on high target ships: a target factor of 35 or more counts as 1.8 units, while a low target-factor ship only counts as 0.8 of a unit. For the industry, the targeting system is a transparent one: operators can see that they can reduce the Target Factor on their ships by switching away from high-scoring flags and class societies; they are also acutely aware that charterers, insurers and other industry stakeholders are aware of the operator’s port-state inspections record and will factor this into their economic decisions. As one operator remarked:
‘It’s getting through to charterers now […] . Everybody is using EQUASIS\(^5\) – lawyers, charterers, P & I clubs […] . “Name and shame” works: it’s helping to remove the sub-standard ships that are driving down the freight rates.’

For individual operators and crew, the targeting system indicates that a ship with poor record in terms of deficiencies and detentions will be frequently inspected until that record improves. This inspector deliberately generated a long list of deficiencies, in the knowledge that it would result in a high Target Factor for the ship and more frequent inspections, which in turn would require a change in crew safety behaviour:

‘[The inspector] listed eleven deficiencies […] . But on the advice of his line manager he did not detain the ship, although a couple of deficiencies were “borderline detainable” […] . [The inspector] had been minded to detain the ship after he encountered an antagonistic attitude from the mate and the Chief Engineer. After he asked the mate to rig up steps and rails from the stevedores loading the deck cargo, the mate said, “OK, we rig up some steps for the inspectors and the girls”. After he pointed out to the Chief Engineer that there was an exhaust leak in the confined space housing the emergency generator, the Chief refused to accept it was a hazard and, as we left, shouted “I thank Heaven you are going”. Earlier, the Chief had told me privately that he thought that inspectors were just creating jobs for themselves […] . [The inspector] had told the master and the mate that he was disappointed that senior officers were not more safety-minded. In the car returning from the dock, he talked at length about the ship: in his time as an inspector he had never encountered such antagonism from crew before […] . [He] said that his decision to generate a long list of deficiencies would produce a high Target factor for the ship in the SIRENaC\(^6\) database, which would result in frequent inspections, which would force the senior officers to adopt a more safety-conscious approach.’

The principles of the targeting system are clear and I am sure would command general support across the industry. Nevertheless, I need to point briefly to a number of
difficulties. Firstly, and most obviously, no targeting system can compensate fully for inadequate resources and there will be times when even very high-target ships are not inspected simply because no inspectors are available. In the case of the Panagia Oditigria, for example, although the ship had a medium-high target factor (30), the detaining inspector said that he would not have gone to inspect the ship if there had not been a complaint from the pilot, who had reported a snapped mooring wire, a seeming poor command of English on the bridge and the poor quality of equipment on view. It is MCA policy to respond to all such complaints, but otherwise the inspector would have stayed in the office dealing with the large amount of paperwork still outstanding from a previous detention, which was only released two days previously.

Relatedly, as was pointed out by both inspectors and regulators, the 25% target for Paris MoU countries and individual Marine Offices takes insufficient account of the fact that the very worst vessels (and especially the detained vessels) require much more inspection time. At present, the system incentivizes the inspector to inspect the second worst ship in the port, not the worst. I saw no evidence that inspectors avoided inspecting obviously sub-standard ships, but this is testimony to the professionalism of the port-state control officers, not the sophistication of the targeting system.

Secondly, the operation and local use of the SIReNaC system is subject to a number of problems. Sometimes the system crashes – this happened quite frequently in the first months of 2003. Not all local Marine Office staff are eligible to operate SIReNaC: inspectors who wish to make an early start to a distant port must phone in after 9.00 to find an office colleague to select a target ship and sometimes that journey may be wasted. Misreadings of the database are not uncommon: I myself have accompanied an inspector to the ‘wrong’ m/v Vera, there being four ships of this name. There are the usual difficulties with information being incorrect or outdated: again, it is common for inspectors to board a targeted vessel only to find it has been inspected in another Paris MoU port in the last few weeks, but the data have not yet been entered into SIReNaC. To use SIReNaC, office staff must of course have information on ship movements in and out of local ports; but the smaller ports do not typically supply this information to the Marine Offices, so target selection is confined to the larger ports and visits to the smaller ports depend on occasional ‘fishing trips’ by curious inspectors or on the investigation of a complaint.
More seriously, SIRENaC is far from an infallible guide to sub-standard ships. Take the example of the Agios Athanasius, detained on 30/7/03 with 23 deficiencies. One of the Paris MoU targeting criteria loads the target factor for bulkers over 12 years old, but a clean previous inspection record kept its overall target factor low at 11. The detaining inspector commented:

‘It had been inspected ten times previously and only one deficiency had been recorded. Most of the previous inspections had been in Spain or Piraeus. The class surveyor, who was listening, gave a snort of laughter when Piraeus was mentioned. [The inspector] said he found it scarcely credible that a 20-year-old [in fact, 23-year-old] bulker could have such a low target factor. The class surveyor agreed, gesturing to the hatch-cover and the cleats, he said that this kind of kit simply wore out after 15 years or so.’

The argument here is that poor inspection practice can result in a failure to detect deficiencies, which in turn leads to a low Target Factor, which in turns leads to fewer inspections and thus to fewer opportunities to expose the ship as sub-standard. This is issue of inconsistency in inspection practice requires examination at more length.

**INCONSISTENCIES IN INSPECTION PRACTICE**

‘There’s ONE word you can put in [your report] for port-State control: inconsistency. Inconsistency between ports and between countries.’ [ship operator]

The experience of the inspector on the Agios Athanasius, who found himself on a substandard ship with a clean record in recent past inspections, was a common one. For example, another inspector boarded a ship following a report from the French coastguard that the ship had been drifting broken-down off Ushant; it had a target factor of only 2 and at its last port-state inspection in Spain, only two months previously, no deficiencies had been recorded:
‘[The inspector was decidedly unimpressed by the state of the ship […]. He said that it was the second ship he’d been on recently which had multiple serious deficiencies, but had a low target factor and had a clean bill of health at its previous recent inspection (with the previous inspection in Denmark).’

That ship had fourteen deficiencies listed and only avoided detention by the inspector because it was due to enter dry dock in the next fortnight. Another ship, which was detained by that inspector, with twenty two deficiencies (including defects in both of the lifeboats, non-operative smoke alarms in the engineroom, cockroaches in the galley and cracked windows in the crew accommodation) had last been inspected in the UK, with zero deficiencies.

Port-State control in the Paris MoU countries is a discretionary system, in contrast to the checklist approach used in some other inspection regimes, such as that of the US Coastguard and the SIRE inspectorate operated by the oil companies. The first page of the Paris MoU manual for inspectors clearly states that inspectors are required to use their professional discretion in deciding how detailed that inspection will be. An inspector, who had found no deficiencies in the inspection of one lifeboat, was asked by the master if he wanted to inspect the other lifeboat: he declined, saying that port-State inspections were ‘a sample, not a survey’.

Discretion is a ubiquitous feature of legal processes; it is the means by which systems of governance achieve flexibility and minimise oppressiveness. Discretion allows the efficient use of scarce inspection resources and can provide a ‘light touch’ approach, which minimises difficulties for responsible operators. And it is a fallacy that the contrasting checklist approach ensures consistency in practice: there are plenty of sociological studies to demonstrate that no rule can specify the occasions of its use, and that all checklist systems are subject to variable interpretation by operatives. However, as Keith Hawkins puts it in his overview of socio-legal studies writings on discretion:

‘…While the flexibility of discretion can be valuable in individualising the application of the law, its subjectivism can also be the cause of
inconsistency in decision outcomes: apparently similar cases may not be treated in the same way by decision-makers […]. An obvious corollary […] is that discretion can impose similar outcomes upon apparently different cases […]. Secondly, apparent inconsistency is often cited as an example of arbitrary decision-making […]. A third set of criticisms has to do with the power that discretion grants to officials and the scope for its abuse […]. For those affected by decisions, discretion can lead to uncertainty and insecurity and, in some legal settings, to intrusive behaviour by officials.’ (K. Hawkins, 1992: 15-16).

None of the inspectors I observed behaved arbitrarily or intrusively. On the contrary, I thought them models of good behaviour, who frequently went out of their way to be helpful to crew and to other parties. But inconsistency between inspectors was readily observable. At one extreme, as already demonstrated, some inspectors will judge a ship to be substandard and detainable although a previous recent inspection (both in the UK and in other Paris MoU countries) has found no deficiencies at all. At the other extreme, particular inspectors were observed to engage in particular inspection practices that were not followed by any other inspectors. For example, only one inspector was routinely observed to check the temperature gauge in the meat store, and only one inspector would routinely check on whether the ship’s bell was in place. Inspectors themselves were aware that their practices differed in some respects from those of their fellows: they were perfectly aware, for example, that some inspectors were more likely than others to detain ships and to list more deficiencies. These individual differences are evident from inspection records. Over a year in one office, for example, one inspector averaged 1.4 deficiencies per inspection, while one of his colleagues averaged 8.4 deficiencies per inspection. It is clear that some inspectors are more effective than others in detecting substandard ships.

**ENFORCEMENT DEFICIT OR REGULATORY DEFICIT?**

Good governance is a matter of both good regulation and good enforcement. Practically everyone I have spoken to in the industry believes that the current regulatory framework for the shipping industry is pretty adequate, although the
relevant ILO Conventions are in need of consolidation, an issue currently being addressed by the Joint Maritime Commission. Indeed, it was the widespread perception that the problems of shipping industry governance lay in enforcement, rather than in inadequate regulation, which was the stimulus for starting up this study. However, I want to suggest that, in one important respect, there is a current regulatory deficit: that deficit occurs in respect of seafarer fatigue.

We know that seafarer fatigue is an important health and safety issue. McCallum et al (1996) examined 279 US Coastguard Reports to show that fatigue was a contributory factor in 16 per cent of critical vessel casualties and 33 per cent of personnel injuries. Our own Cardiff fatigue study, collecting shipboard data from 177 seafarers on seven ships in the short sea trades, showed that high fatigue scores were directly associated with poorer mental health (Smith et al. 2003). Fatigue is a multifactoral phenomenon, caused by a combination of job factors, but the single variable most strongly associated with fatigue is that of working hours (ibid.).

Since port-State inspectors lack the resources to observe ships in operation at sea, investigation of hours of work and rest must be a matter of checking the paperwork. Crew lists and crew certificates of competency were routinely inspected to ensure that the ship was in conformity with the flag-State Safe Manning document. Likewise, records of hours of work were routinely inspected and, on five of the inspected ships, inspectors listed as deficiencies the failure to record hours of work or rest of at least some section of the crew. However, it was widely recognised that these paper records were being routinely falsified:

‘I was late arriving at the ship […], by that time [the inspector] had finished with the paperwork and had just started on the bridge. I was asked if there were any issues about the paperwork. He said he’d looked at the logged hours of work and that “the captain had been honest enough” to state that the hours of work represented what they would be paid, rather than the actual hours worked. But without documentary evidence of excess hours, there was nothing that he, as an inspector, could do about it.’
‘In his office, the captain talked straightforwardly about the ISM code. Only he and the mate could take a watch, so they naturally worked more than the maximum hours and routinely under-reported their hours.’

‘When we first sat down to look at the paperwork, the mate (who looked desperately tired) said he’d not got to sleep until 2.00 this morning. [Inspector]: “Are you complaining about the hours chief?” Mate: “No I am not complaining, we are just having a conversation here”. Laughter all round.’

The falsification of hours of work and rest would be less material if the relevant ILO Conventions did not permit ‘six-and-six’ watch-keeping. One inspector was incensed to discover, on enquiry to his line managers, that he could not list as a deficiency for rectification the hours of work and rest of two engineers working six-and-six watches on a Panamanian-flagged bulker without an automated engineroom:

‘In that six hours, they’ve got to shower and eat – any emergency and they’d be worn out’.

As things stand, the only action open to the inspector is to write to the flag-State and ask them to revise the Safe Manning document. The Paris MoU has announced that there will be a Concentrated Inspection Campaign on hours of work and hours of rest in the autumn of 2004. But it is seems likeley that further enforcement effort by inspectors in this area will have little impact on seafarer fatigue until the regulations on permitted hours of work and rest are amended.

**CONCLUSION**

Taken as a whole, the UK port-State control officers who have kindly allowed me to accompany their inspections, and have answered my questions, are hard-working, experienced and knowledgeable professionals. They often work under difficult conditions: I have seen them offered inducements and I have seen them abused. Many of them are ex-seafarers and all of them are committed to saving and improving the
lives of present-day seafarers. However, I have shown that there are a number of problems in respect of the governance of health and safety in the shipping industry – problems of resourcing and targeting, and problems of inconsistency – although in the particular case of seafarer fatigue, it is clear that problems of governance stem primarily from a regulatory deficit, not an enforcement deficit.

Clearly, twenty years of port-State control have not succeeded in eliminating substandard ships. This is not a controversial conclusion. The latest Paris MoU Annual Report (Paris MoU, 2003) itself states:

‘Port State control results for 2002 indicate that efforts need to be enhanced to obtain a substantial reduction in the number of substandard ships visiting the region.’

The lack of success of port-state control must be understood in the context of the globalised nature of the shipping industry. Global industries pose particular problems of governance (Braithwaite and Drahos, 2000). And, as any observer of the travails of the World Trade Organisation could tell us, there are no successful models of global governance for the shipping industry to emulate. An essentially local system (and therefore a locally variable system) of enforcement will never be wholly successful in policing a globalised industry.

Nevertheless, I believe there are some grounds for optimism. Within the industry there is a perception that, while port-State control has not eliminated substandard ships, it has nevertheless made it more difficult to operate them and some operators have been encouraged to re-position themselves in the marketplace and move towards the operation of better quality ships and crews. Relatedly, it can be seen that the economic decision to save on operating costs by regulatory avoidance is quite readily reversible. It is unnecessary for a visiting substandard ship to be detected in every port. That ship need only be detected on an occasional basis for the operator to find that the occasional costs of correcting deficiencies, extra berthing charges, releasing the detention, loss of freight earnings and loss of reputation, etc, all sum to an amount which removes the economic incentive to regulatory avoidance. It may well be that
we only need a marginal improvement in the detection of substandard shipping by port-State control for market forces to signal the virtual demise of substandard ships.

NOTES

1. I am very grateful to my SIRC colleague Nick Bailey for his help in conducting five of the interviews with the inspectors.

2. Designated Person Ashore, the representative of the ship operators who responds to breakdowns in safety procedures and regulatory breaches.

3. See section on ‘Resources and Targeting’.

4. Port-State, flag-State and examining duties are only the most common tasks of the inspectorate. They must also act as advisors to the industry, respond to complaints from the public and gather preliminary evidence for the Marine Accident Investigation Branch on injuries and collisions.

5. EQUASIS is a common industry database on ship safety, set up following the International Quality Shipping conference in Lisbon in 1998 and financially supported by the EC, France, UK, Spain, Singapore and the Japan.

6. SIReNaC is the Paris MoU database which can be interrogated to provide Target Factor for a visiting ship.
REFERENCES


