1. Introduction

New Inspection Regime (NIR) is to target more High Risk Ships, while ships classified as Low Risk Ships will be subjected to fewer inspections. The NIR provides a more risk based system for identifying and targeting non-complaint ships for inspections on regular basis. The NIR will assign ship risk profiles (SRP) to every individual ship available in the database of the IOMOU.

2. Ship Risk Profile

All ships in the information system of IOMOU i.e. IOCIS are assigned as High, Standard or Low risk based on generic and historic performance parameters such as Type of Ship, Age of Ship, Flag State Performance, Recognized Organization Performance, Company Performance and Ship Performance. Each performance parameter is evaluated using appropriate formula, and weighting points is assigned for High, Standard or Low risk. Finally sum of weighting points pertaining to all considered performance parameters will decide High, Standard or Low risk ships. Criteria used for considering High, Standard or Low risk ships are as follows:

1. High Risk Ship (HRS) is a ship which meets criteria to a total of 5 or more weighting points based on calculations of HRS parameters in the previous 36 months.
2. Low Risk Ship (LRS) is a ship which meets all the criteria of the LRS parameters and has at least one inspection in the previous 36 months.
3. Standard Risk Ship (SRS) is a ship which is neither risked as HRS nor LRS.

3. Ship Risk Profile Calculation Matrix

<table>
<tr><th colspan="2" rowspan="2">Parameter</th><th colspan="2">High Risk Ship (HRS) (When sum of weighting points >=5)</th><th>Standard Risk Ship (SRS)</th><th>Low Risk Ship (LRS)</th></tr>
<tr><th>Criteria</th><th>Wt. Pts.</th><th>Criteria</th><th>Criteria</th></tr>
<tr><td colspan="2">Type of Ship</td><td>Oil tanker (313)
Gas Carrier (320)
Chemical tanker (330)
Bulk carrier (340)
Passenger ship (371)</td><td>2</td><td rowspan="10">Neither HRS nor LRS</td><td>---</td></tr>
<tr><td>Age of Ship</td><td>All Types</td><td>> 12 years</td><td>1</td><td>---</td></tr>
<tr><td rowspan="2">Flag</td><td>Performance</td><td>Very Low / Low</td><td>1</td><td>High</td></tr>
<tr><td>Audit</td><td>---</td><td>---</td><td>Yes</td></tr>
<tr><td rowspan="2">RO</td><td>RO of IOMOU</td><td>---</td><td>---</td><td>Yes</td></tr>
<tr><td>Performance</td><td>Very Low / Low</td><td>1</td><td>High</td></tr>
<tr><td>Company</td><td>Performance</td><td>Very Low / Low</td><td>2</td><td>High</td></tr>
<tr><td rowspan="3">Ship</td><td>Deficiency Ratio</td><td>High</td><td>1</td><td>Low</td></tr>
<tr><td rowspan="2">Detentions</td><td>= 2 detentions</td><td>1</td><td rowspan="2">No detention</td></tr>
<tr><td>>= 3 detentions</td><td>2</td></tr>
</table>

Note: All the calculations would be based on running 36 months data.
SRS is neither HRS nor LRS.

4. Calculation of Performance Parameters

The performance parameters considered for calculation of ship risk profiles are:

1. Type of Ship
2. Age of Ship
3. Flag State Performance
4. Recognized Organization Performance
5. Company Performance and
6. Ship Performance

4.1 Type of Ship

4.1.1 Ships with type as Oil Tanker (313), Gas Carrier (320), Chemical Tanker (330), Bulk Carrier (340) and Passenger Ship (371) will be targeted and are assigned Weighting Points 2 (Two).

4.1.2 Ships with other types than those mentioned above are assigned Weighting Points 0 (zero).

Accordingly, Criteria for 'Type of Ship' would be:

Parameter (Type of Ship)	HRS	SRS	LRS
Oil Tanker (313) Gas Carrier (320) Chemical Tanker (330) Bulk Carrier (340) Passenger Ship (371)	2	Neither HRS nor LRS	-
Others (i.e. excluding above mentioned 5 Ship types)	-		

4.2 Age of Ship

4.2.1 Ships with age > 12 will be assigned Weighting Points 1(One).

Accordingly, Criteria for 'Age of Ship' would be:

Parameter (Age of Ship)	HRS	SRS	LRS
> 12 years	1	Neither HRS nor LRS	-

4.3 Flag State Performance

4.3.1 For establishing flag State performance two parameters are considered viz. Flag Performance based on Deficiency and Detention Ratio and Flag Audit.

4.3.2 **Flag Performance based on Deficiency & Detention Ratio** : This takes into account deficiency and detention history of all ships under the flag. It is determined on the basis of Flag Performance matrix, which contains comparison of Averages of Flag Deficiency Ratio with IOMOU Deficiency Average and Flag Detention Ratio with IOMOU Detention Average. Flag is ranked as having "Very Low, Low, Medium or High" performance. The calculations are made daily on the basis of a running 36 month period.

$$\text{Flag Deficiency Ratio} = \frac{\text{No. of Deficiencies (Flag)}}{\text{No. of Inspections (Flag)}}$$

$$\text{Flag Detention Ratio} = \frac{\text{No. of Detentions (Flag)}}{\text{No. of Inspections (Flag)}}$$

IOMOU Averages would be calculated and published after final publishing of Annual report (say 1st of April every year) considering **36 months data [i.e. 3 calendar years**] based on following formulae

$$\text{IOMOU Deficiency Ratio} = \frac{\text{No. of Deficiencies (IOMOU)}}{\text{No. of Inspections (IOMOU)}}$$

$$\text{IOMOU Detention Ratio} = \frac{\text{No. of Detentions (IOMOU)}}{\text{No. of Inspections (IOMOU)}}$$

Comparing flag ratios with IOMOU Average

Deficiency Ratio (Flag)	Deficiency points per inspection
Above Average	> (10% plus IOMOU Average)
Average	= IOMOU Average
Below Average	< (10% minus IOMOU Average)

Detention Ratio (Flag)	Detention rate
Above Average	> (1% above IOMOU Average)
Average	= IOMOU Average
Below Average	< (1% below IOMOU Average)

Flag Performance Matrix

Detention Ratio (Flag)	Deficiency Ratio (Flag)	Flag Performance
Above Average	Above Average	**Very Low**
Above Average	Average	**Low**
Above Average	Below Average	
Average	Above Average	
Below Average	Above Average	
Average	Average	**Medium**
Average	Below Average	
Below Average	Average	
Below Average	Below Average	**High**

Accordingly, criteria for Flag Performance would be:

Parameter	HRS	SRS	LRS
Flag Performance	Very Low / Low (1)	Neither HRS nor LRS	High (0)

4.3.3 **Flag Audit**: The status on completion of audit by any authorized agency like IMO, IMSAS etc. will be based on updated information obtained by the IOMOU Secretariat.

Accordingly, Criteria for Flag Audit would be:

Parameter	HRS	SRS	LRS
Flag Audit (by any authorized agency)	-	-	Yes (0)

4.4 Recognized Organization (RO) Performance

4.4.1 For establishing RO performance two parameters are considered viz. RO of IOMOU, RO Performance.

4.4.2 **RO of IOMOU**: Recognized Organizations of IOMOU are those recognized by at least one member Authority of the IOMOU.

Parameter	HRS	SRS	LRS
RO of IOMOU	-	-	Yes (0)

4.4.3 **RO Performance**: This takes into account deficiency and detention history of the RO. It is determined on the basis of RO Performance matrix, which contains comparison of Averages of RO related Deficiency Ratio with IOMOU RO related Deficiency Average and RO related Detention Ratio with IOMOU RO related Detention Average. RO is ranked as having "Very Low, Low, Medium or High" performance. The calculations are made daily on the basis of a running 36 month period.

$$\textbf{RO Related Deficiency Ratio} = \frac{\text{No. of RO related detainable Deficiencies (RO)}}{\text{No. of Inspections (RO)}}$$

$$\textbf{RO Related Detention Ratio} = \frac{\text{No. of RO related Detentions (RO)}}{\text{No. of Inspections (RO)}}$$

IOMOU Averages would be calculated and published after final publishing of Annual report (say 1st of April every year) considering **36 months data [i.e. 3 calendar years]** based on following formulae

$$\textbf{IOMOU RO related Deficiency Ratio} = \frac{\text{No. of RO related detainable Deficiencies (IOMOU)}}{\text{No. of Inspections (IOMOU)}}$$

$$\textbf{IOMOU RO related Detention Ratio} = \frac{\text{No. of RO related Detentions (IOMOU)}}{\text{No. of Inspections (IOMOU)}}$$

Comparing ratios with IOMOU Average

Deficiency Ratio (RO)	Deficiency points per inspection
Above Average	> (1% above IOMOU Average)
Average	= IOMOU Average
Below Average	< (1% below IOMOU Average)

Detention Ratio (RO)	Detention rate
Above Average	> (1% above IOMOU Average)
Average	= IOMOU Average
Below Average	< (1% below IOMOU Average)

RO Performance Matrix

Detention Ratio (RO)	Deficiency Ratio (RO)	RO Performance
Above Average	Above Average	**Very Low**
Above Average	Average	**Low**
Above Average	Below Average	
Average	Above Average	
Below Average	Above Average	
Average	Average	**Medium**
Average	Below Average	
Below Average	Average	
Below Average	Below Average	**High**

Accordingly, criteria for RO Performance would be:

Parameter	HRS	SRS	LRS
RO Performance	Very Low / Low (1)	Neither HRS nor LRS	High (0)

4.5 Company Performance

4.5.1 Company Performance takes into account, deficiency and detention history of all ships in a Company's fleet while that company was the ISM Company for the ship. It is determined on the basis of Company Performance matrix, which contains comparison of Averages of Company Deficiency Ratio with IOMOU Deficiency Average (Company) and Company Detention Ratio with IOMOU Detention Average (Company). Company is ranked as having "Very Low, Low, Medium or High" performance. There is no lower limit for the number of inspections needed to qualify except a company with no inspections in the last 36 months will be given a 'medium' performance. In Company Deficiency Ratio calculations, ISM and NON-ISM deficiencies are given different weightage.

4.5.2 It may be noted that, *ISM Deficiencies are given weightage of 5 points and for calculation purposes, only one ISM deficiency will be considered per 'ISM Deficiency Inspection' even if there exists more than one ISM deficiency in an ISM Deficiency Inspection. So we consider No. of Inspections with ISM deficiencies instead of No. of ISM deficiencies.*

$$\textbf{Company Deficiency Ratio} = \frac{(\text{No. of inspections with ISM Deficiencies} \times 5) + \text{No. of other Deficiencies} \times 1}{\text{No. of Inspections}}$$

$$\textbf{Company Detention Ratio} = \frac{\text{No. of Detentions (Company)}}{\text{No. of Inspections (Company)}}$$

IOMOU Averages would be calculated & published after final publishing of Annual report (say 1st of April every year) considering **36 months data [i.e. 3 calendar years**] based on following formulae

$$\textbf{IOMOU Deficiency Ratio (with ISM Weightage)} = \frac{(\text{No. of inspections with ISM Deficiencies} \times 5) + \text{No. of other Deficiencies} \times 1}{\text{No. of Inspections}}$$

$$\textbf{IOMOU Detention Ratio} = \frac{\text{No. of Detentions (IOMOU)}}{\text{No. of Inspections (IOMOU)}}$$

Comparing ratios with IOMOU Average

Deficiency Ratio (Company)	Deficiency points per inspection
Above Average	> (10% plus IOMOU Average)
Average	= IOMOU Average
Below Average	< (10% minus IOMOU Average)

Detention Ratio (Company)	Detention rate
Above Average	> (1% above IOMOU Average)
Average	= IOMOU Average
Below Average	< (1% below IOMOU Average)

Company Performance Matrix

Detention Ratio (Company)	Deficiency Ratio (Company)	Company Performance
Above Average	Above Average	**Very Low**
Above Average	Average	**Low**
Above Average	Below Average	
Average	Above Average	
Below Average	Above Average	
Average	Average	**Medium**
Average	Below Average	
Below Average	Average	
Below Average	Below Average	**High**

Accordingly, criteria for Company Performance would be:

Parameter	HRS	SRS	LRS
Company Performance	Very Low / Low (2)	Neither HRS nor LRS	High (0)

4.6 Ship Performance

4.6.1 For establishing Ship performance two parameters are considered viz. Ship Deficiency Ratio and Ship Detentions.

4.6.2 **Ship Deficiency Ratio**: This takes into account deficiency and detention history of the Ship. It is determined by comparing Ship Deficiency Ratio with IOMOU Deficiency Average. Ship is ranked as having "Low, Medium or High" performance. The calculations are made daily on the basis of a running 36 month period.

4.6.3 It may be noted that, *ISM Deficiencies are given weightage of 5 points and for calculation purposes, only one ISM deficiency will be considered per 'ISM Deficiency Inspection' even if there exists more than one ISM deficiency in an ISM Deficiency Inspection. So we consider No. of Inspections with ISM deficiencies instead of No. of ISM deficiencies.*

$$\textbf{Ship Deficiency Ratio} = \frac{(\text{No. of inspections with ISM Deficiencies} \times 5) + \text{No. of other Deficiencies} \times 1}{\text{No. of Inspections}}$$

IOMOU Averages would be calculated & published after final publishing of Annual report (say 1st of April every year) considering **36 months data [i.e. 3 calendar years**] based on following formulae

$$\textbf{IOMOU Deficiency Ratio} = \frac{(\text{No. of inspections with ISM Deficiencies} \times 5) + \text{No. of other Deficiencies} \times 1}{\text{No. of Inspections}}$$

(with ISM Weightage)

Comparing ratios with IOMOU Deficiency Average

Deficiency Ratio	Deficiency points per inspection
Above Average (High)	> (10% plus IOMOU Average)
Average	= IOMOU Average
Below Average (Low)	< (10% minus IOMOU Average)

Accordingly, criteria for Ship Deficiency Ratio would be:

Parameter	HRS	SRS	LRS
Ship Deficiency Ratio	High (1)	Neither HRS nor LRS	Low (0)

4.6.4 **Ship Detention**

4.6.4.1 Number of Ship detentions would be calculated on the basis of a running 36 month period.

- Ship detentions >= 3 will be assigned Weighting Points 2 (Two).
- Ship detentions = 2 will be assigned Weighting Points 1 (One)
- Ship detentions = 0 will be assigned Weighting Points 0 (Zero)

Accordingly, criteria for Ship Detention would be:

Parameter	HRS	SRS	LRS
Ship Detentions	2 detentions (1)	Neither HRS nor LRS	No Detention (0)
	3 or more detentions (2)		

5. Inspection and Selection Scheme

5.1 Based on Ship Risk Profile, the selection scheme determines the scope, frequency and priority of inspections.

5.2 **Periodic inspections** are carried out at intervals determined by the ship risk profile.

5.3 Overriding or Unexpected factors (**see Annex**) might trigger an inspection in between periodic inspections and is referred to as an **Additional Inspection**.

5.4 Ships become due for periodic inspection in the IOMOU region as per following time windows:

5.4.1 For **HRS**- between **5-6** months after the last periodic/additional inspection.

5.4.2 For **SRS**- between **10-12** months after the last periodic/additional inspection.

5.4.3 For **LRS**-between **18-24** months after the last periodic/additional inspection.

5.5 **Ship Priorities**:

5.5.1 **Priority I**: ships must be inspected because the time window has closed or there is an overriding factor.

5.5.2 **Priority II**: ships may be inspected because they are within the time window of inspection or the port State considers there is an unexpected factor warrants an inspection.

5.5.3 **No Priority**: Time Window yet to open and no overriding/ unexpected factor(s).

5.6 The priority and the level of selection will be shown for each ship in the information system of IOMOU.

6. SRP of Banned Ships

6.1 Banned ships will be assigned weighting points 5 and considered as High Risk Ship with Priority I.

7. Steps to be followed for calculation of Ship Risk Profile, Priority and Category of Inspection

7.1 **Step 1**: Calculate Risk Type (HRS, SRS, LRS) based on Parameters along with their respective criteria's as per Ship Risk Profile Calculation Matrix (Refer Point No.3).

7.1.1 HRS ships have weighting points >= 5.

7.1.2 LRS ships have weighting points = 0.

7.1.3 SRS ships are neither HRS nor LRS.

7.2 **Step 2**: Based on calculated Risk Type, check Time Window (close/open).

7.3 **Step 3**: Based on Time window (close/open) or overriding factor /unexpected factor, check for Priority.

7.3.1 Priority I - Time Window Closed or overriding factor.

7.3.2 Priority II - Time Window Open or unexpected factor.

7.3.3 No Priority - Time Window yet to open and no overriding/ unexpected factor(s).

7.4 Step 4: Category of Inspection - Inspections triggered by overriding factors or unexpected factors are referred as Additional Inspection or otherwise it is a periodic inspection.

7.5 Step 4: Display result as

Ship Name -

IMO No. -

SRP - (HRS or SRS or LRS)

Priority - (I or II)

Category of Inspection - Periodic or Additional

Provide Calculation Matrix

7.6 Period considered for calculation would be previous 36 months from today's date

8. Implementation of NIR

8.1 New Inspection Regime (NIR) of the IOMOU is effective from 01.01.2018.

Annex

Overriding and Unexpected Factors

Overriding Factors

The overriding factors, listed below are considered sufficiently serious to trigger an additional inspection at Priority I regardless of period since last inspection:

- **Ships which** :
  - have been reported by another member state.
  - have been involved in a collision, grounding or stranded on their way to port.
  - have been accused of an alleged violation of the provisions on discharge of harmful substances or effluents.
  - does not adhere to safe manoeuvring or safe navigation practices as per routing measures adopted by the IMO.
  - have been suspended or withdrawn from their Class for safety reasons.
  - have been on IOMOU's
    - Ship on Alert List or
    - Ship Watch List or
    - Underperforming List or
    - Banned Ships List.
  - Cannot be identified in the IOMOU database.

Unexpected Factors

The unexpected factors, listed below warrants to undertake an additional inspection at Priority II, based on professional judgement of the Competent Authority if it pose a threat to ship safety, crew safety or marine environment:

- Ships which:
  - are non-compliant with IMO regulations on Navigation.
  - are carrying certificates issued by Recognized Organization which is derecognized.
  - are reported by pilots or relevant authorities about ships prejudice navigation.
  - did not comply with the reporting obligations.
  - are reported with outstanding deficiencies except those with deficiency action code 16 (within fourteen days) and deficiency action code 17 (before departure)
  - are previously detained.
  - are operated in a manner posing a danger to persons, property or the environment.
  - have been reported with problems concerning their cargo, in particular noxious and dangerous cargo.
  - shows non-conformity with their recorded risk parameters, and same is known from reliable sources.
  - have been the subject of a report or complaint by the master, a seafarer or any person or organization with legitimate interest in the safe operation of the ship, ship on-board living and working conditions or the prevention of pollution, unless the member state concerned deems the report or complaint to be manifestly unfounded.