Public consultation on draft MGN on Stability Guidance – Using the Wolfson Method took place between 7 June 2018 and 6 July 2018. A broad cross section of organisations and companies were directly notified of the consultation exercise, including the UK Main fishing Federations and Associations and Fish Producer Organisations which represent a broad cross section of UK fishing interests. Five written responses were received, from significant players in the industry. The responses on specific aspects of the proposals are set out in the table below.

Para	Original Text	Consultee	MCA Response
General	• It is strongly recommended that the opportunity it taken to wrap MGN 503 into this new MGN to make it a one-stop shop for Under 15m FV stability guidance. There is much commonality in the preamble between the two documents, and the remaining guidance is not as long as the Wolfson guidance already included. • The title of the MGN should be the same as MGN 526, and of MGN 427 before it. The MGN's pedigree and application would then be quite clear. • Finally, the draft is a fairly obvious cut and shunt of what has gone before. There are a number of repetitions and some clunky text that could usefully be ironed out to improve readability. Nick Hance (MAIB's Naval Architect) would be willing to assist with this if it would be helpful.	MAIB	MGN427 was developed as a one stop shop for Stability Guidance. It is considered that this created a document that was unwieldy and not user friendly. We therefore are of the view that separate M Notices are appropriate, particularly as MSN 1871 refers to seperate Notices. We have however issued a Fishing Vessel Stability Guide which addresses all apsects of Stability.
Page 1	The title appears unnecessarily complicated. All fishing vessels will be 'involved with loading and lifting operations'. By including this qualification many fishermen may assess the MGN is not applicable to them, so it is suggested the original title be retained, viz: Stability Guidance for Fishing Vessels of under 15m Overall Length.	MAIB	Ageeed. Amended to refer specifically to using the Wolfson Method

Page1	MGN 427(F) was replaced by MGN 526(F). It is strongly recommended that this MGN incorporates, and so also replaces, MGN 503(F) to make it a one-stop shop for <15m stability guidance. The remainder of the draft MGN will need amending as apprporoiate.	MAIB	MGN427 was developed as a one stop shop for Stability Guidance. It is considered that this created a document that was unwieldy and not user friendly. We therefore are of the view that separate M Notices are appropriate, particularly as MSN 1871 refers to seperate Notices. We have however issued a Fishing Vessel Stability Guide which addresses all apsects of Stability.
Summary, Bullet 3	Bullet 3 'Strongly recommends owners and skippers to request stability information for all vessels which have had a stability assessment'. Firstly, the summary is the only mention of this subject, nowhere in the draft MGN is this mentioned again. Secondly it is worth clarifying its applicability to fishing vessels under 12m registered length to which this recommendation applies. Reiterating that 12m-15m fishing vessels require stability would also be helpful.	MAIB	This has been removed. The mGN refers owners to MGN 503 and MSN 1871 which discuss Stability methods.
Page 1, Section 1.2	The phrase 'remain upright' is perhaps confusing. The freeboard and stability of a vessel provides the ability of a vessel to return to the upright after an external force has been applied.	MAIB	MGN amended to refer to Stability
Page 2, Section 1.5	The 'Heel Test' is referred to inferring it is the only means of monitoring how a vessel's stability has changed through life. It should also be mentioned that the roll test is also an effect tool for monitoring through life stability as is later discussed in section 5.3 of the draft MGN.	MAIB	Reference to Roll Tests included
Page 3, 2nd bullet from bottom	Modifications 'should be notified to the MCA'. Under the new Codes the word 'must' rather than 'should' is appropriate. 'Should' sounds like it is only optional, which is no longer the case.	MAIB	Agreed

Page 3, Watertight integrity, 5th Bullet:	The section on bilge alarms should be expended to recommend fitting a bilge alarm in every watertight compartment.	MAIB	amended
Page 3, Watertight integrity, 6th Bullet:	Amend to recommend that vessels have the ability to pump water from every watertight compartment.	MAIB	Amended
Page 3, last bullet	As mentioned above '…conduct a heel test or roll test'.	MAIB	Amended
Page 5, first bullet	After 'Hoppers' suggest adding 'however, with due consideration of'	MAIB	The MGN already states that considerations for hoppers regarding posiitpn, etc, it is therefore not considerred necessary to add additioinal wording
Page 4, Free surface effect, first sentence	The phrase 'in the same way' is repeated twice in the same sentence.	MAIB	Amended
Page 5, second main bullet	For 'dividers' suggest 'pound boards need to be installed longitudinally…' would be more appropriate and after movement of catch use 'or' rather than 'and'.	MAIB	Agreed and amended
Page 5, bold writing before Movement of weight	The sentence refers to 'change their vessel to this type of fishing'. What type of fishing is being referred to from the bullets above is unclear and needs clarification.	MAIB	MGN amended as MSN 1871 requires notification of change of fishing method, so MGN now refers to notification to MCA, regardless of method
Page 5, lifting weights section	Suggest replacing sentence with 'When lifting weights, the load acts from the suspension point, even if the weight itself is positioned just above the water, potentially dangerously raising the vessels centre of gravity.' This makes the consequences clearer.	MAIB	Agreed, amended

Page 6, first bullet	Suggest after 'swing' add 'and lowers the centre of gravity'.	MAIB	Agreed and amended
Page 6, snagging and abnormal weight section	Sentence does not make sense. Suggest replace 'attempts and' with 'contains an'.	MAIB	Agreed and amended
Page 7 Bullet 4	Suggest rephrasing 'Before attempting to free the snag all crew should be mustered on deck wearing Personal Floatation Devices (PFDs) or lifejackets in case of sudden capsize.'	MAIB	Ageed and amended
Page 7, bullet 6	This bullet can be removed as it is repeat of bullet 10	MAIB	Agreed and amended
Page 7, bullet 7	Suggest 'separated' rather than 'parted'. Parted sounds as if a wire or rope has to fail	MAIB	Agreed and amended
Page 7, bullet 8	Suggest inserting 'must be' after 'mechanism'	MAIB	Agreed and amended
Page 7, first sentence after heading 'Tanks'	Liquids create free surface not free surface effect. The word 'effect' is not needed here.	MAIB	Agreed and amended
Page 8, figures at top of page	The title is a little misleading. 'Reducing the free surface of liquids in tanks' would be more appropriate rather than 'risk of liquid'. The figures also refer to 'weight movement' which is rather confusing when talking about sloshing. It may be easier to state, 'No sub divisions in tanks cause greater free surface and raises the vessels centre of gravity', and 'Sub divisions reduce free surface and raises vessel's centre of gravity less'.	MAIB	agreed, reference oin bullet points to centre of gravity has been added
Page 8, Freeboard heading	As previously stated the phrase 'remain upright' is confusing. 'Return to the upright after being heeled' is more appropriate.	MAIB	Agreed and amended

Page 8, Loading heading	Suggest add: 'Do not retain catch on deck if it can be stored in the fish hold'.	MAIB	Agreed and amended
Page 8, Watertight heading	'Keep the vessel upright', better to state 'help right the vessel' and suggest 'hatches' could be replaced by 'openings' to cover more than just hatches.	MAIB	Agreed and amended
Page 9, section 5.4	The phrase 'approximate level of stability' is unclear and poorly worded. Suggest 2nd sentence is replaced with 'When used in combination with the Wolfson Guidance Mark, this will provide the skipper with reassurance and practical loading guidance to reduce the risk of capsize.'	MAIB	Agreed, recommendations from MGN 503 for Minimum Operational Freeboard have been added.
Page 9, Note of freeboard	If this note is needed it must be included on page 3 when freeboard is first mentioned not on page 9.	MAIB	Agreed and amended
Page 9, section 6.1	'Know your minimum safe freeboard' is very difficult for a fishermen to define. At least include the requirement that if a vessel has less than 300mm further precautions are necessary as defined in Seafish Rules. A fishermen may assess he has managed to get home with zero freeboard, this does not mean it was safe to do so.	MAIB	Agreed, recommendations from MGN 503 for Minimum Operational Freeboard have been added.
Annex 1, appendix 1	Arguably this is the most important Wolfson Mark example in the guidance. However, the full page example of how an example chart would look is not included for the decked vessel and the open vessel figure is missing completely. It is suggested a clear full page example for a decked vessel and an open vessel is included, as it would appear after generation from the Safety Folder website.	MAIB	Amended to state that the Notices will include notes on simple efforts to maintain stability.
Page 7	Two of the bullet points note the same thing. "Be alert to having…" and "If in any doubt about being able to "	M Watt	Agreed - See MAIB comment
Pg12 " >10ton?"	I assume this means 10 tons of winch pull, but it could be miss understood for 10 t of fishing gear or 10 t of bollard pull or displacement.	M Watt	amended

Pg12 “Comply with min criteria”	It is my understanding that all new fishing between 12m reg and 15m LOA require stability books and comply with the minimum criteria. This flow chart would suggest only new vessels towing with > 10 ton need to comply with min criteria	M Watt	amended
Pg18 The example given of the stability notice	Considering the last row of the table which highlights when the vessel is at danger of capsize. A maximum sea state is given for this condition when the vessel is determined to be in a state of ‘danger of capsize’. It seems a little contradictory to suggest that there is a maximum sea state that the vessel can operate in if it is indeed at danger of capsize. Conscious that they could be understood as a maximum safe sea state that the vessel could sail in when carrying out lifting operations that induced a high danger of capsizing.	M Watt	Table follo9ws Wolfson Guidance and indicates if vessel has freboard of less than 27mm then it is at risk of Capsize and should restrict its operation to a maximum sea of 0.8m, for instance to avoid capsize
General	General In my opinion, this MGN will be a very valuable and practical contribution to the improvement of safety in smaller fishing vessels. I would especially like to endorse two particular aspects: (a) Sections 3 (Important points on Maintaining Stability), 4 (Important points to improve stability) and 6 (Overloading) offer good advice in a clear manner, which if adopted by owners and skippers, will avoid many situations where a critical loss of stability is likely to occur, and (b) Section 7 (Wolfson Stability Guidance) has at last been given an appropriate level of prominence and, I believe, with suitable training will form a lasting and inexpensive means of enabling skippers to develop a feel for the level of safety of their vessel in different conditions.	A Blyth	No change required

3.2	Free surface effect – Liquids and Catch, second bullet: it is suggested that the problem would be better illustrated if the vessel were depicted with a heel angle, thus more clearly showing the benefits of pound boards	A Blyth	A reference has been included to the ilustration on reducing the risk of liquid in tanks.
3.2	Lifting Weights: The loads is not actually at the suspension point (as the existing text suggests). Suggest amending the first sentence to read "... the effect of the load is as though it is located at the top of ..." Tanks – second bullet: Amend to read "... fore and aft ..." Tanks – fourth bullet: Amend to read "... sub-divisions (provided they are watertight) will ..."	A Blyth	Amended
4	Freeboard: Amend to read "...maintain good operational freeboard between the watertight deck and the waterline in all loading ..." Reason: Freeboard to bulwarks has no meaning in this context. Freeboard to the watertight deck is not always immediately evident	A Blyth	amended

7.1.4	Wolfson Stability Guidance: The statement made is absolutely correct, but it is suggested that the simplicity, ease and minimal cost of this option needs to be more strongly emphasised. With the current text the importance of this statement for the vast majority of under 15m fishing vessels without full stability information may all-to-easily be overlooked. It is suggested that the following text be added: “This approach is applicable to all those vessels under 15m length for which no formal stability data is available, that is to the overwhelming majority of such vessels. The process is completely free and takes less than ten minutes on-line, plus the time needed to draw up and paint the Freeboard Mark onto the vessel, the dimensions and positioning of which are obtainable from the Safety Folder website.” IMPORTANT: Having just accessed https://www.safetyfolder.co.uk it is not obvious how to find the Wolfson Guidance on the website. It is actually necessary to navigate as follows: sign in / register Risk Management Full Safety Folder Stability Information Either this information must be included in the MGN or, preferably, a link to this page be added to the website Home Page, or both. Otherwise many potential users of this guidance are liable to be deterred. Robert Greenwood of NFFO is aware of this issue. IMPORTANT: It was understood that this website actually provided an appropriately dimensioned	A Blyth	Amended - R Greenwood is working on other issues for the Safety Folder/ Examples of the Mark have been included with notices

	Freeboard Guidance Mark. However this does not appear to be so. Versions previously seen did provide a pdf download of the requisite mark. This important omission must be rectified. Robert Greenwood of NFFO is also aware of this issue. IMPORTANT: While the guidance given in the Safety Folder is correct, there appears to be no direct simple guidance on how to use the Freeboard Mark in relation to the Stability Notice. This is essential. To make the connection abundantly clear, it is suggested that in the Minimum Freeboard column of the Stability Notice, a simple pictogram of the Freeboard Mark in relation to the waterline is added below the freeboard dimensions supplied, viz: _____ (deck) (green) (amber) (red) Also: In the Safety Folder Stability Guidance Page: Third para: Amend text to read "...positioned length-wise at ...". Reason: it is otherwise ambiguous regarding vertical positioning. Fourth para: Add to last sentence a link to where the Freeboard Mark diagram and Fitting Instructions can be downloaded. After the fourth para insert new para as follows: "The Stability Notice should be used as follows: "NB: These freeboards should be maintained even when heeled due to lifting. "Green Zone – waterline below the lowest point of the Freeboard Mark – "Safe" in all but extreme sea states. "Amber Zone - waterline between the top and bottom of the Freeboard Mark – "Low level of safety" and should be restricted to low sea states		

	“Red Zone - Freeboard Mark completely submerged – “Unsafe, and danger of capsize” unless restricted to calm conditions and with extreme caution” NB: Above wording has been adapted from that given on page 17 of the draft MGN.		
MGN Annex 1, Section 4	second bullet: Add “, and pictograms of the Freeboard Mark in relation to the waterline.”	A Blyth	Examplesc of the mark have been included with the Notices

MGN Annex 1, Appendices 1 and 2	Add pictograms of the Freeboard Mark in relation to the waterline as suggested above in relation to the Safety Folder, using the design of Mark appropriate to decked and open vessels.	A Blyth	Pictures of mark added to appendix for vessels
MGN Annex 1, Appendix 1:	Figure 3 does not appear in the text provided	A Blyth	Figure 3 added
Summary	The draft MGN provides some useful stability guidance for vessels with and without stability information and has much to commend it. However, the Wolfson Stability Guidance Method is considered unreliable for the assessment of stability during lifting and loading operations at sea and it is very questionable whether the inclusion of guidance in this format is fundamentally wise. In the general draft MGN preamble the prescriptions requiring full reconsideration of the static stability of vessels where physical changes are contemplated is much welcomed, noting for example the failures in the Heather Anne casualty case.	A Morrall and T MacNaughton	The Wolfson Method has been reviewed by Newcastle Univertisty at the request of the RINA Safety Committee and although there are reservations, it is consdiered to be a valuable contribution to small fishing vessels safety.

Wolfson Stability Guidance	We do not propose here to return to all the details of our critique of Wolfson but offer some further insights to support our recommendation to remove the Wolfson Guidance. You may wish to consider the following: a). Wolfson relegated GM in their analysis of HSC model tests despite the importance of this vital initial stability parameter in A.168 for fishing vessels (increased 20% for beam trawlers), in relation to lifting. This absence of GM to develop "lifting guidance" therefore becomes somewhat incomprehensible. b) Wolfson Freeboard Mark formulation relied on the residual stability available against their criterion of a GZ of 0.2 m and a range of 45 degrees, which is beyond the limiting heel of 40 deg. per IMO A.168. Their criterion is obviously illusionary as it does not reflect the demand limitations and realities of a lifting operation at sea as IMO does. c) Wolfson's lifting guidance takes into account the above residual stability criterion, and as such it does not meet all IMO A.168 criteria, particularly the GM requirement of 0.35m (increased 20% for beam trawlers). d). The application of Wolfson's Stability Guidance methodology for lifting loads in different wave heights differs from supplementary quasi-static assessments, such as for passenger crowding, which sets limits for heel angles but ignores wave heights. It is also a departure from accepting the adequacy of A168 criteria and considers GM to be relatively unimportant parameter. It is respectfully suggested that the above points should arouse important doubts about the appropriateness of Wolfson's Stability Guidance methodology and in particular the giving of questionable diagrammatic advice on lifting in respect of over-side loads. A scenario which reflected a truer concept of what actually happens with lifts at sea in fishing vessels was evidently not encompassed. Our joint opinion is that stability and lifting advice for fishing	A Morrall and T MacNaughton	The RINA commissioned report found the methodology used to develop the guidance was fundementally sound. The MCA is however developing potential mandatory requirements for Small fishing vessel stability and the RINA report, and its findings form part of these developments.

	vessels emanating from Wolfson's methodology is based on a number of unrealistic assumptions and is very unwise. Until such times as there is a mandatory stability requirement for vessels under 15m, roll and heel tests are considered to be a better alternative to the Wolfson's Stability Guidance The concept of " traffic lights " depiction of stability do's and don'ts with respect to small vessels without stability data is supported in principle but as given in figures 2 and 3 falls short of adequate clarity. In Figure 2 there is no condition shown with an acceptable catch load with a green panel. Similarly, in Figure 3 no quasi safe condition green panel is illustrated. A skipper needs to know what he can do as well as what he should not. 2. For vessels with full stability data the coloured graphics and diagrams which show a variety of lifts for specific loads should be disposed of being based on fundamentally unreliable data. These are in any case too intricate, very complex to interpret particularly if the inputs needed of load, and estimated wave height in real conditions are not the same as in the illustrations. The vessel's loading condition is not stated, e.g. Worst-Case Loading Condition, or in relation to standard Stability Booklet Conditions. 3. Attention to the SWL's (Safe Working Load) of lifting gear with important regard to Health and Safety Regulations should be given highlighted attention; being the absolute determinant above all other load considerations. 4. The amber and red panels as shown appear to invite unjustifiable risks being taken whereas in vessel stability terms only green would be legally acceptable. A skipper deliberately breaching stability criteria would become liable for criminal negligence. 5. here is a serious misunderstanding that the only consideration is of the known lift loads relative to wave height. In the green panels the implication is that there are no limits to wave / weather conditions and this is plainly wrong. A relatively		

	small load can be deadly to crew on deck during a lift operation and that is the real inhibitor even when the vessel itself is not at significant risk. At Beaufort state 6 and above it probably becomes impossible in many cases to lift anything safely at all. This aspect has apparently not been appreciated in Health and Safety terms. 6. With respect to the freeboard markings for smaller vessels it is not apparent that many (or any) vessel owners have adopted these despite its promotion since 2006, twelve years ago. 2 Recommendations The archive reports of fishing vessel losses do not reveal that normal lifting operations are a “cause of loss” statistic. On the contrary plain overloading has appeared as an ongoing event, which the Wolfson methodology does not adequately address. The following recommendations are made: a. Primary consideration should now be given to withdrawing the Wolfson Stability Guidance Method from the draft MGN (F) for Fishing Vessels involved in Loading and lifting operations. The emphasis should be on straightforward Do's and Don'ts and training. b. The Nordic form of basic operational advice should be adopted for fishing vessels, including freeboards. c. Reference should be made to MCA’s booklet on Fishing Vessels Stability Guidance for skippers and crew. www.gov.uk/government/publications/fishing-vessel-stability-guidance d. There is a need for proper stability assessment of bulk-catch fishing vessels presently without stability data to be included in the MGN (F). A stability booklet for these vessels would establish the maximum load that can be carried and the minimum freeboard.		

General	1. I believe the new MGN has no reference to SCV Code or Small passenger V/L standard covering heel tests, just makes reference to MGN 503. Note, SCV Code heel test is for weights up to 1000kg and Small passenger heel test allows for weights in excess of 1000kg (Taken from MGN 427. 7.1	P Scotter	The MGN has been developed to simplify MGN 427 and for this reason other stability mehods were removed
Page 13	Calculation of safety zones, the equation for green/amber boundary Hs appears incorrect and gives the wrong answer if you don't include the brackets, as shown in the equation Hs on page 16	P Scotter	Agreed and amended
Page 16	the Freeboard mark equation and mark diagram should be all on page 17	P Scotter	Agreed and amanedced
General	1. With regards the Wolfson Method, I'm not sure it takes account that some of the target audience who may have limited competencies in assessing stability, hence, I've made a simple and easy to use example for both open and decked V/Ls, so when discussing with fishermen they could easily use this and just change input of LOA and B to suit their vessel.	P Scotter	Exampless have been included to enhance the explanation