## 命令模式

HMmt hm0[,hm90[,hm180]] [/C1 | /C2 | /C:p | /CC:c] [/H:m] [/GUST: Fg] [/POSTroll]

Specifies a constant or cosine-based heeling moment function.

设定一个恒定的或余弦形式的横倾力矩函数。

HMmt hm1 @ Φ1, ..., hmn @ Φn

Specifies an arbitrary heeling moment function.

设定一个自由的横倾力矩函数。

HMmt [-]WIND [hm90[,hm180]] [/CS|/C1 | /C2 | /C: p | /CC: c | /COnst] [/H:m] [/GUST: fg] [ARMdraft:fraction] [/NONEG] [/YESNEGBELOW] [/BAND [: w] [/COMBine [/NOSHIELD:partlist]] [/[NO]SURFACE]] [/TRIMallow [:trim]] [/DRAFTallow | /DEPTH: depth]

Specifies that heeling moments be derived from the wind pressure.

设定从风压得到的横倾力矩。

HMmt [-]TURN radius, speed [/C1[/H:m]] [ARMdraft:fraction] [/YESNEGBELOW]

Specifies that heeling moments be derived from the centrifugal force due to turning.

设定从回转离心力得到的横倾力矩。

HMmt TANK[/CONST] [/NORIGHTING] [/VARYTRIM] [/LINEAR]

Derives a heeling moment curve from the current tank loads using the heel ANGLES list.

得到基于当前舱室装载和对于横倾角的横倾力矩曲线。

HMmt *

Selects heeling moment direction to match heel angle direction.

使横倾力矩方向和横倾角方向一致。

HMmt OFF

Turns heeling moments off.

关闭横倾力矩。

HMmt REPort

Displays the current heeling moment and its derivation if from the wind plane.

显示当前的横倾力矩，如果是来自于风平面，还显示其来源。

HMmt

Displays the current heeling moment (screen only).

仅屏幕显示当前的横倾力矩。

## 参数说明

hm0, hm90, hm180

Moments at 0° 90° and 180° heel (or at 0°, 90/m°, and 180/m° when /H:m is given); when used with WIND, hm90 is the fixed ratio of moment at 90° to wind-derived moment at 0°.

横倾在 0° ，90° 和 180°时的横倾力矩 （或当参数/H:m 出现时，系指 0°， 90/m° 和 180/m° 时的横倾力矩）。如果与 WIND 参数一起，hm90 是风压倾侧力矩在 90°与 0°时的固定比值。

/C1

Specifies that the cosine form be used.

指定使用余弦形式。

/C2

Specifies that the cosine-squared form be used.

指定使用余弦平方的形式。

/C:p

Specifies that the cosine factor be raised to the p power where 1 < p < 2.

指定余弦因子上升到 p 次方，其中 1 < p < 2。

/CC:c

Specifies using the cosine-constant factor (1-c) + c*cos (Φ) where 0 < c < 1.

指定使用恒定余弦因子(1-c) + c*cos (Φ)，其中 0 < c < 1。

/CS

Specifies that the cosine-sine form be used (same as /C1 if hm90 is missing). This is the default form when hm90 is present without any parameter starting with /C.

指定使用余弦-正弦形式（如果不考虑 hm90 的话，和/C1 相同）。这是给定 hm90 但没有任何以/C 形式开头的参数下的默认形式。

/H:m

Specifies that the heel is multipled by m before cosine and sine operations.

指定横倾角乘以没，再使用余弦和正弦因子。

/GUST: fg

Specifies a gust factor to be used with Severe Wind and Rolling.

指定强风状态的阵风因子。

/POSTROLL

Causes the heeling moment to be suspended until after rolling.

在摇摆停止之前，不进行横倾力矩的计算。

hmi @ Φi

Moment at a specified angle of heel for up to 100 angles.

在指定横倾角（最多 100 个角度）的横倾力矩。

/LINEAR

Forces linear interpolation between and beyond specified heel angles.

强制在指定的横倾角之间和超出指定的横倾角范围之外进行线性插值。

/CONST

Specifies that the heeling moment at zero heel be used constantly at all heel angles.

指定在所有横倾角度下，都使用横倾为 0 时的横倾力矩。

/ARMDRAFT: fraction

Calculates vertical lever arms around a draft-based height instead of the underwater lateral plane centroid that is used by default (unless ground forces are active). The specified fraction between 0 and 1 multiplies the draft line height used for the lever arm (so /ARM:1 uses the full draft height down to the keel for hydrofoil criteria). The draft is located at any mid perpendicular MP defined by the LBP command, else at any midpoint MS defined by LBP or LWL commands, otherwise at the LCF. Note /ARM:0.5 can be used for regulations that specify more conservative Draft/2 for heeling lever arms.

围绕基于吃水的高度计算垂直风压力臂，而不是默认使用的水下横向平面质心（除非地面力处于活动状态）。0 到 1 之间的指定分数乘以用于风压力臂的吃水线高度（因此 /ARM：1 使用的吃水是龙骨底部至水线面的高度）。吃水是位于 LBP 的中点 MP 的吃水，否则位于 LBP 或 LWL 命令定义的中点 MS，否则就是位于漂心的纵向位置 LCF。注意：/ARM：0.5 所计算的横倾力臂，可用于 Draft/2 计算横倾力臂。

/NONEG

Ignores deducting displacer components when calculating above-water lateral plane area for HMMT WIND; sail deductions remain effective. Note HMMT WIND /BAND always ignores deducting components, while STATUS LPLANE and LPA2 variables always include them.

当计算风力横倾力矩的水线面以上侧面面积时，忽略扣除排水类部件，但风帆类部件仍然扣除。注意 HMMT WIND /BAND 会忽略（不考虑）扣除部件，而变量 STATUS LPLANE 和 LPA2 则会包括他们。

/YESNEGBELOW

Causes deducting displacer components to reduce underwater lateral plane instaed of ignoring them for bandless HMMT WIND and HMMT TURN.

导致扣除排水体积，以减少水下侧向平面，因为忽略带宽并用于 HMMT WIND 和 HMMT TURN。

/BAND [:w]

Triggers the band method of calculated projected areas which accounts for wind shielding between components using horizontal bands with width w (default=0.1 meter). Larger band widths reduce accuracy but calculate more quickly.

使用带宽法计算受风投影面积，宽度为 w（默认为 0.1 米）的水平带来计算部件间的风力遮蔽。带越大会使得准确度越小，但是计算速度越快。（译者注：此参数可以考虑各部件的遮蔽，从而减少了重复计算风压倾侧力矩，使得计算结果更准确）。

/COMBINE

Accounts also for wind shielding between parts when used with /BAND parameter.

使用参数/BAND，同样计算子模型之间的风力遮蔽。

/NOSHIELD:partlist

Excludes list of parts (which may include * and ? wildcards) from wind shielding between parts when used with the /BAND and /COMBINE parameters.

当参数/BAND 和/COMBINE 存在时，将扣除表列（可以用*和？）中的受风面积的遮蔽区域。

/SURFACE

Uses any component surface models that may be present for /BAND lateral plane calculations instead of regular geometry station models; by default, surfaces are only used for sail parts transformed by TYPE /MOVE, /SWING, etc. parameters.

使用表面模型而不是几何模型，只有垂直面的面积参与计算。无特别指定，表面面积适用于受风部分的面积。

/NOSURFACE

Ignores any component surface models for /BAND lateral plane calculations.

只是计算垂直面的受风面积。

/TRIMALLOW [:trim]

Allows the current trim angle (or any specified trim) to be used when deriving upright heeling moment from the wind plane. If not present, zero trim is always used for moments (except for the odd case of HMMT WIND /C... with zero heel but non-zero trim, which was historically ambiguous, so must be resolved by including /TRIMALLOW or first setting TRIM=0). Applies only when a parameter starting with /C is present.

当计算来自风平面的垂直横倾力矩时，使用当前纵倾角度（或任意指定纵倾角度）。如果不定义，则认为纵倾为零（如果由于已赋值使得 HMMT WIND /C...横倾为零，而纵倾不为零时，必须使用/TRIMALLOW 进行重新求解，或预先设定 TRIM=0）。仅适用于调用了以/C 为开头的参数的情况。

/DRAFTALLOW

Allows the current waterplane draft to be used for deriving upright wind heeling moment, without regard to whether that draft represents the current weight of the vessel. If not present, HMMT WIND /C... always uses a waterplane agreeing with the current weight. Applies only when a parameter starting with /C is present.

计算正浮状态下的风力横倾力矩时，使用当前水线面吃水，而不管当前吃水是否能表示当前船舶重量。如果不调用，HMMT WIND /C...则总是使用与当前重量相符的水线面。仅适用于调用了以/C 为开头的参数的情况。

/DEPTH: depth

Specifies the origin depth used for deriving upright wind heeling moment. Applies only when a parameter starting with /C is present.

指定计算垂直风力横倾力矩的初始深度。仅适用于调用了以/C 为开头的参数的情况。

radius

Radius of the turn (current length units).

回转半径（单位为当前长度单位）。

speed

Speed through the water while turning (knots).

回转时的水中速度（单位为节）。

/NORIGHTING

Prevents TANK heeling moments from becoming righting moments by flooring to zero any heeling moment having a different sign than its heel angle.

防止 TANK 倾侧力矩变成地板上的扶正力矩，将任何具有与其横倾角度不同标志的倾侧力矩归零。

/VARYTRIM

Solves trim for each TANK heeling moment angle instead of keeping it constant.

计算每个 TANK 不同角度时倾侧力矩，而不是保持恒定。

Note: Heeling moments are taken into account when computing righting arms and finding heel equilibrium.(See the RA and SOLVE commands.)

注意：当计算回复力臂和求解横向平衡时，需要考虑横倾力矩。（详见命令 RA 和 SOLVE。）

## Operation

## 操作

A constant or cosine-based heeling moment function is specified by giving the value hm at zero heel. If /C1 is included, this value is multiplied by the cosine of the heel angle up to 90 degrees, and at larger angles the heeling moment is zero.

通过设定在横倾为零时的 hm 值，可以指定一个恒定或基于余弦的横倾力矩函数。如果还使用了参数/C1，则该值为可达 90 度的横倾角度余弦值和横倾力矩为零时的较大角度的乘积。

Likewise, /C2 uses a cosine-squared factor, /C:p raises the cosine to the p power where 1 < p < 2, and /CC:c uses the cosine-constant factor (1-c) + c*cos(Φ) where 0 < c < 1. If /H:m is included, it define a multiplier m (default=1) for the heel angle φ in cosine and sine operations.

类似的，/C2 使用余弦平方因子；/C:p 使用余弦 p 次方，其中 1 < p < 2；/CC:c 使用恒定余弦因子(1-c) + c*cos(Φ)，其中 0 < c < 1。如果参数/H:m 存在，m 因子（缺省时为 1）将适用与余弦和正弦因子计算。

A cosine-sine or cosine-based heeling moment function can be specified by giving the moment values hm0, hm90 and hm180. If hm180 is omitted, the heeling moment is, for Φ ≤90°

通过设定 hm0, hm90 和 hm180 的力矩值，可以指定一个余弦-正弦或基于余弦的横倾力矩函数。如果省略 hm180，则横倾力矩为，Φ ≤90°时：

| | |
|---|---|
| **hm0 cos(Φ)+ hm90 \|sin(Φ)\|** | **` with /CS or no slash parameter**<br>**` 适用/CS 或非斜线参数** |
| **(hm0-hm90) cos^p(Φ)+ hm90** | **` with /C:p, /C1 (p=1), /C2 (p=2), or /CC;**<br>**`适用/C:p, /C1 (p=1), /C2 (p=2),或 /CC；** |

and for Φ > 90°

而 Φ > 90°时：

**hm90.**

If all three values are given, the heeling moment is the same as above, except for |mΦ| > 90° where

如果三个值都被设定了，横倾力矩和以上相同，但除了|mΦ| > 90°时，其中

| | |
|---|---|
| **hm180 cos(Φ)+ hm90 \|sin(Φ)\|** | **` with /CS or no slash parameter**<br>**` 适用 /CS 反斜线参数** |
| **(hm180-hm90) cos^p(Φ)+ hm90** | **` with /C:p, /C1 (p=1), /C2 (p=2), or /CC.**<br>**` 适用 /C:p, /C1 (p=1), /C2 (p=2), 或 /CC。** |

With hm0 = 0 or "OFF" (hm90 and hm180 omitted), the heeling moment becomes zero; ie. it is "turned off".

如果 hm0 = 0 或"OFF"（hm90 和 hm180 省略），则横倾力矩变为零；即：“被关闭”。

An arbitrary heeling moment function can be specified by giving samples of the moments at two or more angles. The maximum number of samples allowed in this format is 100. Interpolation and extrapolation between and beyond the samples is by 2nd degree polynomial. If heeling to both port and starboard is expected, samples on both sides must be given.

通过设定两个或多个角度下的力矩值来确定一个自由横倾力矩函数，允许的最多的角度数 100。给定角度之间或之外的插值是通过二次多项式实现的。如果想要左舷和右舷都倾斜，则需要分别给出左右舷横倾力矩值。

## Wind Heeling

**风力横倾**

If the WIND keyword is given, heeling moments are derived from the wind pressure function previously supplied by the WIND command together with the geometry of the vessel model:

如果设定了关键字 WIND，则通过命令 WIND 提供的风压函数，以及船舶模型的几何形状，来计算横倾力矩。

**hm(Φ)= ∑ (p(hi) * Ai * li)**

where

其中

∑ indicates the summation of the above-water lateral plane elements represented by hi, Ai and li;

∑为后面括号内容的求和符号；是指水线以上部分的风压力矩之和。

p is the wind pressure function supplied through the WIND command;

p 为命令 WIND 提供的风压函数；

hi is the distance of the centroid of the $i^{th}$ lateral plane element above the waterplane;

hi 为第 i 个原件的侧平面质心到水平面的距离；

Ai is the lateral area of the ith element;

Ai 为第 i 个原件的侧平面面积；

li is the vertical lever arm of the $i^{th}$ element from its centroid to the centroid of the underwater lateral plane (or /ARMDRAFT height).

Li 为第 i 个原件从其质心到水下侧平面质心的垂直力臂（或 /ARMDRAFT 高度）。

Lateral plane elements are displacer or sail components projected onto a plane perpendicular to the waterplane and parallel to the rotation (heel) axis, multiplied by any component shape factors to produce effective lateral plane area. Components which are partially submerged are divided at the waterline and contribute both to the above-water and below-water lateral planes.

原件的侧平面为排水类或风帆类部件投射到垂直于水线面且和转动轴（横向）平行的平面上的投影，再乘以所有部件的外形因子所得到的有效侧平面面积。部分浸没的船体在吃水线处分开，并同时为水面和水下侧向平面做出贡献。

HMMT WIND uses the classical method to calculate lateral plane area in which each component is treated as a separate element with wind pressure applied at its center of area. No reduction of lateral plane area is taken for the "shadow" cast by a windward part or by components within a part if /BAND is not used. As such, splitting a centerline component into port and starboard half components doubles its upright lateral plane area. AXIS rotation is not permitted when HMMT WIND is in effect without /BAND.

HMMT WIND 使用传统方法计算每一个部件的侧向受风面积，并计算作用于面积中心的风压。如果不使用参数/BAND，对于迎风子模型或子模型部件的“阴影”投射，侧平面面积不做任何减少。因此，如果把一个居中部件分为左舷和右舷两个部件，那么会使得其垂向侧平面面积翻倍。HMMT WIND 下，不允许 AXIS 有旋转。

HMMT WIND /BAND uses a different method to calculate the wind force. Instead of taking the areas of each component individually, the profile areas of all components of each part are projected onto a common set of horizontal bands. This approach accounts for shielding between components (and parts also if /COMBINE is present). Wind pressure is applied at the height of each band's center. AXIS rotation is permitted with HMMT WIND /BAND.

HMMT WIND /BAND，使用不同于传统方法计算受风力。这种方法不是将部件（子模型）一个一个地计算，而是，将所有部件（子模型）投影到水平带上来计算的。这种方法可以考虑部件之间的阴影（如果引用参数/COMBINE）。风力施加在每个带的中心高度上。允许坐标轴旋转。

Compared to the classical method used by HMMT WIND, the BAND method has the greater accuracy when there is overlapping of components in the wind plane. In typical models where the ship's exterior is represented by several components, the non-band method increasingly overstates lateral area as heel angle increases. The accuracy of the /BAND method is not generally affected by the ship's attitude in either heel or trim.

与传统方法 HMMT WIND 相比（考虑所有部件的侧面投影，不管其中间是否有所遮挡，在每个部件中心施加风压），当在风平面有部件重合时，使用参数/BAND 会更加准确。在一些船舶外形是由多个部件构成的特殊模型中，当横倾角增大时，不使用/BAND 会考虑过多的侧面面积。使用参数/BAND，其准确性通常不会受到船舶横倾或纵倾的影响。

The method of obtaining the lateral center of resistance from the underwater portion of the vessel model is the same as the method being used to obtain the wind area and center.

计算浸没部分的阻力中心和水线面以上部分的受风面积和中心的方法是一样的。

The /C1 parameter causes the lateral plane data at zero heel and trim to be used at all heel angles and the hm function to be replaced by

参数/C1 使得正浮状态的侧平面数据应用于所有横倾角度，并且 hm 函数被替换为：

**hm(Φ)= hm(0) * cos(Φ).**

Similarly the /C2 parameter uses the function

类似的，参数/C2 使用函数：

**hm(Φ)= hm(0) * cos^2(Φ).**

The /CONST parameter causes the heeling moment at zero heel and trim to be used for all heel angles without variation.

参数/CONST 使得正浮状态的横倾力矩应用于所有横倾角度，而没有任何变化。

In these cases (with /C1, /C2 and /CONST) the draft, for lateral plane purposes, is determined by the total weight of the vessel at the time when the heeling moment is needed.

在调用参数/C1，/C2 和 /CONST 的情况下，用于得到侧平面的吃水是由需要求解横倾力矩时的船舶总重决定的。

The sense of the wind heeling moment is normally such that a starboard list is induced (wind pressure on the port side). To put the wind on the starboard side, "-WIND" may be used.

风力横倾力矩通常是由于船舶右倾引起的（即风压在左舷）。如果要把风施加在右舷，则需要使用"-WIND"。

The /GUST parameter specifies Fg, a factor which multiplies hm after the heel angle is changed by the ROLL angle (see the ROLL command):

参数/GUST 指定 Fg 因子，其乘以 hm 得到摇摆角度使得横倾角度变化之后的 hm'（详见命令 ROLL）：

**hm'(Φ)= Fg * hm(Φ)**

Fg thereafter remains in effect until the HMMT command is given again (except in the "HMMT REPORT" form).

Fg 一直保持有效，直到再次使用命令 HMMT 为止（"HMMT REPORT"形式中除外）。

### Turn Heeling

**回转横倾**

If the TURN parameter is given, the heeling moment is derived from the centrifugal force due to the turn:

如果设定参数 TURN，则横倾力矩计算源于回转离心力：

**hm(Φ)= w * s^2 * l(Φ)/ (g * radius)**

where

其中

w = the total weight of the vessel;

w =船舶总重；

s = the speed through the water;

s =水中速度；

l(Φ)= the vertical lever arm between the center of the underwater lateral plane and the center of gravity, taken at heel angleΦ

l(Φ)=在横倾角为 Φ 时，水下侧平面的中心到重心的垂直作用力臂；

g = the acceleration of gravity.

g =重力加速度。

The /C1 parameter causes the lever arm at zero heel and trim to be used at all heel angles and the hm function to be replaced by

参数/C1 使得正浮状态的作用力臂应用于所有横倾角度，并且 hm 函数被替换为：

**hm(Φ)= hm(0) * cos(Φ).**

The draft at which hm(0) is evaluated is determined from the total vessel weight at the time when the heeling moment is needed.

hm(0)的吃水由需要求解横倾力矩时的船舶总重决定。

Normally, the turn-induced heeling moment is such that a starboard list is induced (ie. from a counterclockwise or left turn).The opposite moment is produced by using "-TURN".

通常，回转所致的横倾力矩是由于船舶右倾引起的（即逆时针或左转）。反向力矩则使用"-TURN"。

HMMT TURN cannot be used when the AXIS rotation is nonzero.

当 AXIS 轴旋转不为零时，将不能使用 HMMT TURN。

### Tank Heeling

### 舱室横倾

There are two distinct ways that tank loads can be used to derive a heeling moment function:

有两种使用舱室装载的方法来得到横倾力矩函数：

1) HMMT TANK derives a heeling moment curve by using the angles defined by the ANGLES command to the full 360 degree range (up to 100 total angles) and finding the heeling moment induced by the free surface in slack tanks for each angle. The trim is kept constant unless /VARYTRIM is present.

1）使用命令 ANGLES 定义的角度（360 度全方位，最多 100 个角度）和求出半载舱在每个角度下的自由液面所致的横倾力矩，通过 HMMT TANK 得到一个横倾力矩曲线。除非/VARYTRIM 命令出现，否则纵倾保持不变。

   This effectively separates the effects of tank free surface from the hull stability; viz. the righting arm plot will show a separate heeling moment curve (see example below). One application is for showing the effect of water on deck when it is required that the displacement not vary but rather that the water be represented as a heeling moment.

   这有效的分离了舱室由于船舶稳性产生的自由液面的影响；即：回复力臂图表将显示一个单独的横倾力矩曲线（详见以下样例）。一个实际应用为：当要求排水量不变，但相反甲板上的积水被视为产生了一个横倾力矩，这将显示甲板积水的影响。

2) HMMT TANK /CONST sets a constant heeling moment value taken from the present total transverse moment of tank loads. This is useful for converting formal heeling moments due to shifting of bulk cargo to a heeling moment.

2）HMMT TANK /CONST 设定当前所有舱室的总横向力矩为一个恒定横倾力矩值。这在由于散货移动，需转换形式横倾力矩为横倾力矩时十分有用。

### Reversal

### 反向

A special form of the HMMT command causes the direction (port-heeling vs. starboard-heeling) of the heeling moment to be selected on the basis of the current heel angle. The direction is selected such that the heeling moment tends to increase

the magnitude of the heel. If the current heel angle is zero, no change of direction takes place. For example:

命令 HMMT 的一种特殊形式，使得横倾力矩的方向（左倾和右倾）基于当前横倾角度。其方向为横倾力矩试图使横倾值增大的方向*（译者注：自动选择不利的横倾方向）*。如果当前横倾角度为零，则方向不变。例如，

**HEEL = 5p**

**HMMT = ***

results in a heeling moment to port.

结果为左舷横倾力矩。

### Postponing Heeling Moment

### 延迟横倾力矩

The /POSTROLL parameter causes the heeling moment to be suspended until after:

参数/POSTROLL 使得横倾力矩延迟，直到出现以下命令：

**HEEL=*-ROLL**

command is issued. This is somewhat like the action resulting from the /GUST parameter but it applies to any kind of heeling moment and it simply turns the heeling moment on rather than increasing it by a factor.

这和参数/GUST 得到的结果有点类似，但是这适用于所有类型的横倾力矩，并且能够方便的重新启动横倾力矩，而不需要通过一个因子使其增大。

## Display Output

## 显示输出

HMMT REPORT produces a report of the current heeling moment and indicates its source.

HMMT REPORT 生成一个当前横倾力矩的报告，并指出其来源。

When HMMT REPORT is used after HMMT WIND, the report shows the derivation of the heeling moment from the lateral plane. LPA means the lateral plane area respecting the current waterplane. SF is a reference to shape factors which may have been assigned to individual components. HCP is the height of the center of pressure (centroid) of the lateral plane above the waterplane. "Arm" is the lever from the underwater center to the above-water center of the lateral plane. Moment = LPA x SF x Arm x Pressure.

当在 HMMT WIND 之后使用 HMMT REPORT 时，报告将显示横倾力矩来自哪个侧平面。LPA 为关于当前水线面的侧平面面积。SF 为阴影系数，其可能会在各个部件中事先指定。HCP 为水线面之上侧平面的压力中心（质心）高度。“力臂”为侧平面的水下部分中心到水上部分中心的距离。力矩=侧平面面积 X 阴影系数 X 力臂 X 压强。

The report generated when HMMT WIND /BANDS is in effect is a little different. Rather than showing area and pressure, it shows force, which is their product. The reason for this is that Pressure x Area is integrated over the (large number of) horizontal bands into which the lateral plane is divided. HCF is the height of the center of this force above the waterplane.

当使用命令 HMMT WIND /BANDS 时，报告将会有所不同，其将不会显示面积或压强，而会显示风力，即：面积和风压的乘积。这样做的目的是为了整合由侧平面分割而来的水平带（尤其在其数量庞大时）。HCF 为水线面之上的风力作用高度。

If the HMMT command is given without parameters, it displays (on the screen only) the value of the heeling moment function in the current condition.

如果引用命令 HMMT 而不添加其他参数，将显示（仅在屏幕）当前状态下的横倾力矩函数值。

When heeling moment is in effect, the RA command output includes a note documenting the form of the heeling moment functions employed.

当横倾力矩有效使用时，命令 RA 的输出会额外注明所使用横倾力矩函数的形式。

## Nondisplay Output

## 非显示输出

none.

无

## Examples

## 样例

Specifying a constant heeling moment:

指定一个恒定横倾力矩：

**HMMT = 1234**

Specifying heeling moments at 0° and 90°

指定在 0° 和 90° 的横倾力矩：

**HMMT = 1400, 1900**

Heeling moments at 0° 90° and 180°

指定在 0° ，90° 和 180° 的横倾力矩

**HMMT = 9400, 5100, 1300：**

Heeling moments at specified angles:

指定在指定角度的横倾力矩：

**HMMT = 2000 @ 0, 1700 @ 15, 1200 @ 30, 1100 @ 45**

Using the cos^2 function between 0° and 90°

在 0° 和 90°之间使用 cos^2 函数

**HMMT = 9400 /C2**

Using wind heeling moments:

使用风力横倾力矩：

**HMMT WIND**

Using wind heel for IMO Severe Wind and Rolling:

使用 IMO 强风和摇摆的风力横倾：

**HMMT WIND /CONST /GUST: 1.5**

Using semi-submersible rig wind formula hm=wind0*(1+0.7*(1-cos²(2φ))):

使用半潜平台的风压力矩公式 hm=wind0*(1+0.7*(1-cos²(2φ)))：

**HMMT WIND 1.7 1 /C2 H:2**

Using turn heeling moments at radius of 1000, speed of 20 knots:

在回转半径 1000 米，船速 20 节时，使用回转横倾力矩：

**HMMT TURN 1000, 20**

Displaying the current heeling moment:

显示当前横倾力矩：

**HMMT REPORT**

Getting a heeling moment from grain-shifted TCG in a calibrated tank:

求出标准舱室内由于谷物横向移动而导致的横倾力矩：

**TANK = name | LOAD = 0.95**
**TYPE CALIBRATE**
**HMMT TANK /CONST**
**TYPE FROZEN**

Separating the effect of free surface from hull stability:

分离来自船舶稳性的自由液面的影响：

**TANK = name | LOAD = 0.5**
**TRIM = 0**
**HMMT TANK**
**TYPE FROZEN**
**FIX TRIM**
**RA `<-- Plots heeling arms as a separate curve. 绘制横倾力臂为一条单独曲线。**
**TYPE INTACT**

**HMMT OFF**

**RA `<-- Plots RA curve including FS effects.** 绘制包含自由液面影响的回复力臂曲线。