

MUSC2115

A i g]WcZhY'% hY'7Ybhifm

HYfa 'C bY''##'&\$&\$

7ci fgY⁻Cj Yfj]Yk

'GhJZZ'7cbhJWh'8YhJ]`g'

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]lm	@cWUhjcb	D\cbY
9a YfmiGWXi VYfh	Y"gVXiVYfh4ibgk"YXi"Ui	VmWcbgi `HJh]cb	KYVghYf*%\$%	-',) '*, \$,

GWXcc`7cbHJWhi±bZcfa Uhjcb

Fcca " & ž`Yj Y`" FcVYfhK YVghYf'6i]`X]b[

D\cbY.'f\$&Ł'-',)'(,)*

9a U]`. 'gUa 4 i bgk "YXi "Ui

K YVg]hY. <u>\hdg.#gUa "Ufhg"i bgk "YXi "Ui</u>

AYWGWxciHazn W5ftg: Ubaaybxjok ciHx~[ay hciFfygbywz "m5Wbck YX[Yhxy HA U

7c hY]Ugk

7ci fgY 8YW] g

7 fYX]hDc]bhg**

Giaa UfmcZh\Y 7ci fgY

5 'ghi XmcZ% h\!W'bhi fm'9i fcdYUb'a i g]W]b']hg'\]ghcf]WU'z'gcWJU''UbX'W 'hi fU''WcbhYl hg"'\bW XYg'U'hi hcf]U'']b a i g]Wc'c[]WU''fYgYUfW.'hYW.b]ei Yg'UbX'X]gW gg]cb'cZ\]ghcf]WU''dYfZcfa]b['Wcbj Ybh]cbg"

7 ci fgY @YUfb]b[Ci hWca Yg

- %" 8 Ya cbghfuhY ZJJa]`]Uf]hmik]h\ 'h\ Y`a cghfYdfYgYbhJh]j Y`Wca dcg]h]cbg`cZh\ Y`F ca Ubh]WdYf]cXž]bWi X]b[`cdYfUž@]YXYfž'gc`c`UbX`W.Ua VYf`a i g]Wž'UbX`cfWXYghfU``k cf_g"
- &" 8]gW gg'h\Y'\]ghcf]WJ`g][b]Z]WUbW'UbX'ghm]gh]WZYUh fYg'cZ% h\ 'WYbh fm'Wca dcg]h]cbg']b'UbUfh\W `UhY'UbX']bZcfa YX'a UbbYf"
- ' "8]gd`UmUWei]fYX`_bck`YX[Y`UVci ha i g]WUbX`gcW]Yhm]b`% h\!WYbhi fm9i fcdY`UbX`h\Y`fc`Y`% h\! WYbhi fmUYgh\YhJWgž]bhY``YWhi U``]XYUg`UbX`k cf`X!j]Yk `d`UmYX`]b`g\Ud]b[`a cXYfb`a i g]Wb`c[]WU`

5 https://bxubwww.Fyei]fYaYbhg

Ghi XYbhgʻUfYʻghfcb[`miYbWci fU[YX'hcʻUhhYbX'U```WUggYgʻUbX'fYj]Yk '`YWhi fY`fYWcfX]b[g"

7ci fgY'GWXYXi `Y

J]Yk 'WUgg'ha YhUV'Y

H]a YtUV`Y

8 UHY	HmdY	7 cbhYbh
K YY_'%'%+': YVfi Ufm!'&% : YVfi Ufm		@YWnfY.`<]ghcf]WU``VUW_[fcibX`hc`aig]W]b`h\Y 7%h\
		FcaUbh]W]ga`]b`aig]W`Aig]WU``[YbfYg`UbX`ghm`]gh]W W.UfUWhYf]gh]Wg
		Hi hcf]U`g. '6YYh\cj Yb'g'' fX`UbX'*h\ 'Gma d\cb]Yg/ K YVYf. '8Yf': fY]gW\ØmžK c`Z; `Yb'GWYbY
K YY_`&.`&(`: YVfi Ufm!`&, : YVfi Ufm		@YWnffY.`CfW.YghfUg`UbX`cfW.YghfUh]cbžh\Y "aYUb]b["`cZ]bghfiaYbhU`Wc`cifg
		Hi hcf]U`g. 'Gma d\cbm': UbhUgh]ei Yž'H]``'9i `Ybgd]Y[Y`ž 6fU\a gž'A U\`Yf'UbX'K U[bYf
K YY_'' . '&'A UfVX'! '* A UfVX		@YWfifY.'>[WZU'ei]bhYggYbh]U`FcaUbh]WUfhZcfa
		Hi hcf]U`g.`H\Y`Gcb[g`cZGW\i VYfhž`GW\i a Ubbž 6fU\a gžK c`ZUbX`F "`GhfUi gg
K YY_'(.'-'A UfW\'!'% A UfW\		@]ghYb]b['hYgh'%'fC fW.YghfU`'UbX'@]YXŁ
		@YWnifY.`D]Ubc'aig]W]b'h\Y'%h\'WYbhifm'="
		Hi hcf]U`g.`A]b]Uhi fY`d]Ubc`d]YWYg/DYfZcfa UbWYdfUWf]WY
K YY_")."%*"A UfWX"!"&\$ A UfWX		@YWnffY.'D]Ubc'aig]W]b'h\Y'%h\'WYbhffm'="
PA OTVIN		Hi hcf]U`g.`@Uf[Y`gWU`Y`d]Ubc`d]YWYg/DYfZcfa UbWY dfUWf]WY
		81 9-'DfY`]a]bUfm'UbbcHJHYX'fYZYfYbWY'`]gh'UbX YggUm'd`Ub'fAcbXUmŁ
K YY*.*&' ^A UfWX^!^&+ A UfWX		EFG6K I 77=ł`a U'SeežEfgVW fe SdWSVh[eWV fa X[`S1[eWdWeWSdUZ a`fZW[dWeeSke S`V bdWbSdWXad >[efW] [`YFWefe\$S`V %Z
K YY_"+." \$"A UfVX"!"		@]ghYb]b['hYgh'&'fD]Ubc'UbX'W\Ua VYf'a i g]WL
[5df]`		@YWMifY.`CdYfU'—'bUh]cbU``ghm`Yg`UbX`WcbjYbh]cbg

	Hi hcf]U`g. '#U`]Ub 'C dYfUž'J YfX]	
K_YY_', . '* '5df]`'! '%\$ '5df]`	@YWnifY."CdYfU"]b"h\Y"gYWcbX"\U"ZcZh\Y"WYbhifmi	
	Hi hcf]U`g. J YfX]ž6]nYhžDi VWJb]žK U[bYf	
	THE TOT JO G. STEATED TO WIND JET OF OTT	
K YY_''% '5df]`'!'%+	@YWhfY.'K U[bYf'	
5df]`		
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K_YY_"%\$."&\$"5df]"!"&(@]ghYb]b['hYgh' 'fcdYfUŁ" FYj]g]cb'UbX'Gi a a Ufm	
5df]`		

FYgci fWyg

DfYgWf]VYX F Ygci fWYg

 $HUfi\ g_]b\check{z}`F\]W\&UfX.\ `H\Y\ `C\ I\ ZcfX\ `\]ghcfmcZK\ YghYfb\ `A\ i\ g]W!\ `A\ i\ g]W]b\ `h\Y\ `B\]bYhYbh\ `7\ Ybhi\ fm$

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

5 WUXYa]W<cbYghmUbX D`U[]Uf]ga

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i±i\WbihU_Yia Ubm Zcfa gžZfca iXYi]VYfUhYiW\YUh]b[ihciU\W]XYbhU`m\Wcdm]b[iZfca iUigci f\Wik]h\ci hiU\w_bck iYX[Ya Ybh'

IBGK [fcidg'd'U[]Uf]ga]bhc'h\Y'Zc``ck]b[WUhY[cf]Yg.

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a]`Uf'k cfXg'hc'h\Y'cf][]bU`hYl h'cf']XYU'k]h\ci h'UW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g'U`gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfcYWhgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k \YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'

⇒ Uddfcdf]UhY 'dUfUd\fUg]b[. '7\Ub[]b['U'ZYk'k cfXg'UbX'd\fUgYg'k\]Y 'a cghmfYhU]b]b['h\Y'cf][]bU`ghi Wh fY 'UbX#cf'dfc[fYgg]cb'cZ]XYUg'cZh\Y'cf][]bU`žUbX']bZcfa Uh]cb'k]h\ci hUW_bck`YX[Ya Ybh'H\]g'U`gc Udd`]Yg']b'dfYgYbhUh]cbg'k\YfY'gca YcbY'dUfUd\fUgYg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'UbX'hc d]YW]b['hc[Yh\Yf'ei chYg'UbX'dUfUd\fUgYg']bhc'U'bYk'k\c`Yžk]h\ci h'Uddfcdf]UhY'fYZYfYbW]b['"

7 c``i g]cb.'k cf_jb['k]h\ch\Yfg'Vi hdUgg]b['cZZh\Y'k cf_'Ug'U'dYfgcb'g']bX]j]Xi U``k cf_"'7 c``i g]cb'U`gc]bWi XYg'dfcj]X]b['mci f'k cf_'hc'Ubch\Yf'ghi XYbhVYZcfY'h\Y'Xi Y'XUhYžcf'Zcf'h\Y'di fdcgY'cZh\Ya d`U[]Uf]g]b['UhiUbmh]a Yž'dUm]b['Ubch\Yf'dYfgcb'hc'dYfZcfa 'Ub'UWUXYa]WhUg_ž'ghYU']b['cf'UWei]f]b[Ubch\Yf'dYfgcb'g'UWUXYa]Wk cf_'UbX'Wcdm]b[']hz'cZYf]b['hc'Wca d'YhY'Ubch\Yf'dYfgcb'g'k cf_'cf'gYY_]b[dUma YbhZcf'Wca d'Yh]b['UWUXYa]Wk cf_"

±bUddfcdf]UhY`W]hUh]cb.`7]h]b[`gcifWrg`k\]W\`\UjY`bchVYYb`fYUXžk]h\cihUW_bck`YX[]b[`h\Y`´gYWcbXUfm´gcifWrZfca`k\]W\`_bck`YX[Y`cZh\Ya`\Ug`VYYb`cVhU]bYX"

8 i d`]\WUh]cb`ffgY`Zd`U[]\Uf]ga "Ł gi Va]\h]b[`mci f`ck b`k cf_ž]b`k \c`Y`cf`]b`dUfhžk \YfY`]h\Ug`dfYj]ci g`m VYYb`dfYdUfYX`cf`gi Va]\hYX`Zcf`Ubch\Yf`UggYgga Ybhcf\Wci fgY`UhI BGK `cf`Ubch\Yf`i b]j Yfg]\m'

7 cffYWnfYZYfYbWlb['dfUWnWyg.

• DUfUd\fug]b[z'gi a a Uf]q]b[z'YggUmk f]hb['UbX'ha Y'a UbU[Ya Ybh

5 WUXYa]W = b Zcfa Uh cb.

: cf`YggYbhJU``gh XYbh`]bZcfa UhJcb`fY`UhJb['hc.

- fYei Yghg Zcf Yl hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk 'cZa Uf_g/
- I BGK '< YU`h\ 'UbX'GUZYhm'dc`]W[Yg/
- YI Ua]bUhcb dfcWXi fYg/
- gdYWJU``Wcbg]XYfUhJcb`]b`h\Y`Yj YbhcZ]``bYgg`cf`a]gUXj Ybh fY/
- gh XYbhYei]mUbX X]gUV]`]m/
- UbX'ch\Yf'YggYbhJU`'UWUXYa]W]bZcfa UhJcbž'gYY

\hdg.#k k k "Uffg"i bgk "YXi "Ui #W ffYbhgh XYbhg#UWJXYa]W]bZcfa Uf]cb#dfchcWc`g![i]XY`]bYg#

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∍a U[Y'7fYX]h

Gc`c'DYfZcfa UbWY'A U_]b['&\$%

7F = 7CG

7F = 7CG Dfcj]XYf 7cXY. \$\$\$-,;