

# **MDIA2000**

5b]a Uhjb[ A YX]U

HYfa "Hk c" ## "&\$&\$

# 7ci fgY'Cj Yfj ]Yk

#### GHJZZ7cbHJWh8YHJ]`g

#### 7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`] <b>m</b>	@cWUh]cb	D\cbY
5`mggU'F ch\k Y``		J ]U'Ya U]` Uddc]bha Ybh'U"fch\ k Y``4 i bgk "YXi "Ui	'%% '@YjY`'ž G]f:FcVYfh KYVgHYf 6i]`X]b[ž IBGK	\$&-',)*,\$+

#### GWkcc~7cbhJWh~abZcfa Uh]cb

GWXcc``cZhXY`5fhg`UbX`AYX]U

Fcca ' %&ž@Yj Y`' žFcVYfhK YVghYf6i]X]b[fl %(Ł

D\cbY. f\$&£'-',) '(,) \*

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

K YVg]hY. k k k "Ufhg"i bgk "YXi "Ui #gUa

## 7ci fgY 8YW] g

7 fYX]hDc]bhg\*\*

Gi a a UfmcZh\Y 7ci fgY

GI VYWh5fYU. ? W[S

5b]a Uhjcb']g'U'i b]j YfgU'ij ]gi U'iZcfa 'k ]h\'U'f]W\'\]ghcfm'UbX'a i 'hjd'Y'Udd']WUhjcbg']b'WcbhYa dcfUfm']ZYZZZca 'h\Y'WjbYa U'hc'ZjbY'Ufhgž'UXj Yfhjg]b['UbX'VYmcbX''' = b'h\]g'\UbXg!cb'Wci fgY'mci 'k ]'``VY'YbWci fU[YX'hc WfYUhjj Y`mYl d`cfY'U'VfcUX'fUb[Y'cZ&8'Ub]a Uhjcb'hcc`gž'[U]b]b['U'Zci bXUhjcb']b'ghfU][\hiU\YUXž'\_YmZfUa Y UbX'ghcd!a chjcb'Ub]a Uhjcb'hYW\b]ei Yg'i g]b[']bXi ghfmghUbXUfX'Wca di hYf!VUgYX'gcZhk UfY'UbX'Yei ]da Ybh' K ]h\'Ub'Ya d\Ug]g'cb'hYW\b]WU'i bXYfghUbX]b['UbX'Z bXUa YbhU'WcbWldhg'cZj ]gi U'ighcfmhY``]b['z'h\]g Wci fgY'k ]``Yei ]d'mci 'k ]h\'h\'Y\bbYgbWl'UbX']bXYdYbXYbWl'hc'XYj Y`cd'mci f'ck b'Ub]a Uhjcb'dfUWfWl k ]h\]b'U'XmbUa ]WUbX'Yj c'j ]b['hYW\bc`c[]WU'``UbXgWUdY''

### 7 ci fgY @YUfb]b[ 'Ci hWca Yg

%" 8Ya cbgffUHY`\_bck`YX[Y`cZh\Y`df]bW]d`Yg`cZUb]a Uh]cb`UbX`dfcXi Wh]cb`HYW\b]ei Yg" &" 9b[U[Y`]b`WfYUh]j Y`dfcV`Ya 'gc`j ]b[`dfcW/ggYg`k \Yb`XYj Y`cd]b[`a YX]U`dfcXi Wh]cbg" \" DfUWn]WY`]bXYdYbXYbh'UbX`fYZYWh]j Y``YUfb]b["

#### HYUWX]b[ 'GhfUhY[]Yq'

#### 7ci fgY'F UhlcbU'Y.

 $\label{thm:condition} $$H\g'' W' ifgY'' g'' XYX' hc'YbUV'Y'gh XYbhg'hc'XYj Y`cd'a YX]U'dfcXi Whjcb'g_j`g']b'h\Y'UfYU'cZ5b]a Uhjcb'' DfUWhyW'k ]h\]b'h\Y'Z|Y'X'cZA YX]U'DfcXi Whjcb'k ]``fYei ]fY'UXj UbWX'Yj Y`g'cZ\UbXg'cb'Yl dYf]YbW''UbX'Ub'' UbX'Ub'' UbX'Ub'' UbX'Ub''UbX''DhYfbUhjcbU`'Ub]a Uhjcb''Udd`]WUhjcbg''UbX'dfUWhyW'g'hc'YbUV'Y'h\Y]f'cb[c]b[XYj Y`cda Ybh''$ 

#### HYUW ]b[ GhfUhY[ ]Yq.

K YY\_`mcb`]bY``YWf fY`UWfj ]hJYg`k]```]bhfcXi WY`ghi XYbhg`hc`U`VfcUX`fUb[Y`cZ`cWJ``UbX`]bhYfbUhJcbU`Ub]a UhJcb`ghmYgž'Udd`]WUhJcbg`UbX`a YX]U`dfcXi Wfjcb`dfcWYggYg"`H\YgY``YWfi fYg`UfY`XYg][bYX`hc`\Y`dghi XYbhg`XYj Y`cd`UbX`fYZYWficb`h\Y]f`ck b`Ub]a UhJcb'dfUWJWY"

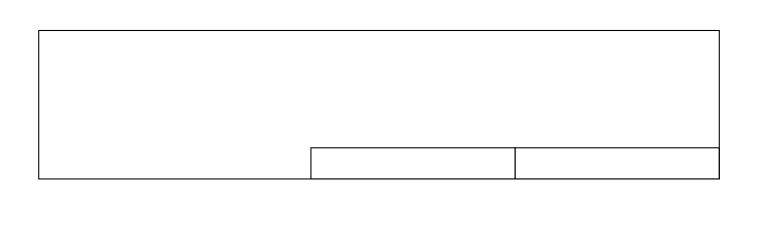
Ghi X]c 'gYgg]cbg'k ]```[ ]j Y 'ghi XYbhg'\UbXg'cb'Yl dYf]YbW''XYj Y`cd]b[ 'Ub]a Uh]cbg'i g]b[ 'U'j Uf]YhmicZ HYWkb]ei Yq']b 'X]ZYfYbh'mdYg'cZghi X]c 'gdUWYg"

H\Y`glfi Wi fY`cZUggYgga Ybrik ]```U``ck `gli XYblg`l\Y`cddcfli b]lmžUlnYUW\`gltU[Yžlc`XYj Y`cd`UbX`Vi ]`X`l\Y]f Ub]a Uljcb`g\_]``g`UbX`Ybgi fYg`UʻgYei YbWXXi bXYfglUbX]b[ `cZl\Y`a YX]UʻdfcXi Wljcb`dfcWfgg" 6mUg\_]b[ `gli XYblg`lc`ZcW g`]b`XYlU]``cb`UʻgdYW]ZJWfYgYUfW\`UfYUʻfbf`gci fWf`cZ]bgd]fUljcbŁZcf`U`` UggYgga YbhVf]YZgžl\Y`Wci fgY`YbWci fU[Ygʻgli XYblg`lc`ZcW g`UbX`fYZ]bY`l\Y]f`Ub]a Uljcbʻg\_]``g" H\Y`UggYgga YbhlUg\_g`Ya i `UllY`glU[Ygʻ]b`l\Y`XYj Y`cda YblicZUʻdfcZYgg]cbU``Ub]a UljcbʻdfcYWf`Gli XYblg l\Y`zfY`YI dYf]YbWYYUW\`glU[YcZdfcXi Wljcb`k\]`Y`a cj ]b[ 'lck UfX`l\Y`Wca d`Yljcb`cZl\Y`5b]a Uljcb DfcYWf'

Ghi X]c 'gYgg]cbg'k ]```dfcj ]XY 'gYj YfU``cddcfhi b]h]Yg 'Zcf'ghi XYbhg'hc 'dfUWf]WY 'h\Y]f'Wca a i b]WUh]cb'g\_]``gž g\Uf]b[ 'h\Y]f']XYUg'k ]h\ ch\Yfg'Vch\ 'h\fci [\'gdYYW\ 'UbX'k f]h]b[ "`Ghi XYbhg'k ]```VY YbWci fU[ YX'hc 'fYZYWh cb'ghfUhY[]Yg'Zcf']a dfcj ]b[ 'h\Y'YZZYWh] YbYgg'cZh\Y]f'Wca a i b]WUh]cb"

Ghi X]cg'k]``VY'ghfi Whi fYX'hc'YbWci fU[Y'ghi XYbhg'hc'[]j Y'gi ddcfhUbX'ZYYXVUW\_hc'ZY``ck 'ghi XYbhg"'H\]g k]``dfcj]XY'cddcfhi b]h]Yg'Zcf'ghi XYbhg'hc'fYZYWhcb'h\Y'dfcXi Wh]cb'dfUWh]WY'YI dYf]YbWYg'k]h\]b'U'VfcUXYf'WcbhYI h'

Gh XYbhgik ]```\Uj Yih\Yicddcfh b]hmhciWfYUhYiUbicf][ ]bU`i5b]a Uh]cbih\UhifYZYWhgih\Y]fig\_]``giUbXi]bhYfYghg"



gi ddcff]b[ `[ i ]XY`]bYg`k ]```VY`dfcj ]XYX"H\]g`]g`h\Y`Z]bU``UggYgga Ybh'lUg\_"`: YYXVUW\_a Yh\cX.'J YfVU` ZYYXVUW\_k ]```VY`[ ]j Yb`Xi f]b[ `Ub`]bZcfa U``dfYgYblUf]cb`Zcf`h\Y``YWi fYf`UbX`U`ga U```[ fci d`cZZY``ck ghi XYblg"

,

**Gi Va** ]gg]cb'bchYg.5'XYhJ]YX'Vf]YZZcf'h\]g'UggYgga Ybh'hUg\_'UbX'gi ddcfh]b['[i ]XY\]bYg'k ]\''VY'dfcj ]XYX''

# 5 hm/b X Ub VW F Yei ] fYa Ybhg

# 7ci fgY'GWXYXi `Y

# J]Yk 'WUgg'hja YhUV'Y

# H]a YHJV`Y

8 UhY	Hmd Y	7 cbhYbh
K YY_"%"%">i bY"!") ">i bY	Cb`]bY'5W <b>j</b> j] <b>m</b>	5bi]bhfcXi Whcbihci&8i5b]a Uhlcb
K_YY'&', '>i bY'!''%& >i bY	C b`]bY'5WMjj]hm	5b]a Uf]cb^Dfc^YWf^l bdUW_YX* 5b^cj Yfj ]Yk ^cZ5ggYgga YbfiHUg_^% ^&
	C b`]bY 5 W¶j ]hm	&8 5b]a Uh]cb ±bgd]fUh]cb / ±bZi YbW/ 5b]a Uh]cb D]cbYYfg
K YY_'(.'&&'>i bY'!'&* >i bY	C b`]bY 5 W¶j ]hm	&8 5b]a Uhjcb ±bgd]fUhjcb7 ±bZi YbW 5b]a Uhjcb7cbhYa dcfUfm
K YY_")."&- ">i bY"!"	Cb`]bY'5W <b>j</b> j] <b>m</b>	&8 5b]a Uhjcb7 Gci bX
K YY_'*.'*'>i `m!'%\$'>i `m	< ca Yk cf_	H\]g`]g`U`ZYI ]V`Y``YUfb]b[ 'k YY_"
K YY_"+."%" '>i `m'! "%+">i `m	Cb`]bY'5W <b>i</b> j] <b>h</b> m	&8 '5b]a Uhjcb']b'7cbhYl h
K YY_', .'&\$'>i `m'!'&( '>i `m	Cb`]bY'5W <b>i</b> j] <b>h</b> m	±bX]j ]Xi U``DfcYWiDfcXi Wjcb`7cbgi `HJrjcb
K YY_''&+'>i `m'!'' %'>i `m	Dfc YWh	±bX]j ]Xi U``DfcYWiDfcXi Wjcb`7cbgi `HJrjcb
K YY_'%\$." '5i [i gh!'+ 5i [i gh	Dfc YWh	±bX]j]XiU``DfcYWnDfcXiWnJcb'7cbgi`HUhJcb

## FYgci fWyg

### DfYgWf]VYX F Ygci fWfg

D'YUgY fYZYf 'hc 'h\Y 'a X]U&\$\$\$ 'A ccX'Y 'g]hY 'Zcf'i d'hc 'XUhY fYgci fWY fYWca a YbXUh]cbg"

#### FYWca a YbXYX FYgci fW/g

Ghi XYbhgʻk ]``bYYX'rc`\Uj Y'UWWggʻrc'U'Wca di hYfʻk ]h\ vi ]`hi]b#k YV'WJa YfU'UbX'r\Y']bhYfbYhZcfʻcb`]bY ghi X]c 'gYgg]cbgžʻcb`]bY '`YWhi fY'UWIj ]hJYgʻUbX'dfcXi WIJcb'k cf\_"'Ghi XYbhgʻa UmVY'Ug\_YX'rc'Xck b`cUX gdYWJZWZYY'cf`]bYI dYbg]j Y'Uddg#gcZhk UfY'UbX'[ Uh\Yfʻcfʻdi fWkUgY']bYI dYbg]j Y'fYgci fWgʻUbX Wcbgi a UV'Yg"'5 'XYhU]'YX'`]ghicZh\YgY'k ]``'VY'dfcj ]XYX'j ]U'h\Y'a X]U&\$\$\$'5b]a UhJb[ 'A YX]U'A ccX'Y k YVg]hY''5 'fY`]UV'Y'UbX'dfcZYgg]cbU``\UfX!Xf]j Y']g'YggYbhJU`'hc'Ybgi fY'h\UhU``'dfcXi WIJcb'k cf\_']g'VUW\_YX i d'UbX'gUZY`mghcfYX'Zcfʻh\]g'Wci fgY'UbX'ZcfʻZ hi fY'i gY']b'mci f`A YX]U'DfcXi WIJcb'DcfhZc`]c"'D`YUgY'fYZYf`hc h\Y'a X]U&\$\$\$'A ccX'Y'g]hY'Zcfʻi d'hc'XUhY'fYgci fWY'fYWca a YbXUhJcbg"'

#### 7 ci fgY 9j U'i Uhcb UbX 8 Yj Y'cda Ybh

# Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g

## Hi fb]h]b Gi Va ]gg]cb

Image: Ybwei bhyfu'dfcv'ya k \yb'uhhya dhjb[ 'hc'gi va ]hmci f'Ugg][ ba Ybhh\fci [ \ 'Hi fb]h]bž'd'YUgY

Hy'Yd\cby'9| hy'fbu''Gi ddcfhcb'-', ) '' ' ' %cf'Ya U]''h\Ya 'cb'Y! hy'fbu'hy'hgi ddcfh4 i bgk "YXi "Ui "''Gi ddcfh
\ci fg'UfY', .\$\$Ua '-'%\$.\$\$da 'cb'k YY\_XUmg'UbX'-.\$\$Ua '-').\$\$da 'cb'k YY\_YbXg'fl \*) 'XUmg'U'mYUft'''=Z'mci
UfY'i bUV'Y'hc'gi va ]hmci f'Ugg][ ba YbhXi Y'hc'U'ZJi 'hk ]h\ 'Hi fb]h]b'mci 'a Um'Udd'mZcf'Ub'Y! hy'bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h]W\_Yhbi a VYf'Zfca '9! hy'fbU''Gi ddcfhfU'cb[ 'k ]h\ 'Ubmch\Yf'fy'Yj UbhXcW a Ybhgt'hc
]bWi XY'Ug'Yj ]XYbW' hc'gi ddcfhmci f'Y! hy'bg]cb'Udd']WUh]cb"'=Zmci 'Ya U]''9! hy'fbU''Gi ddcfhmci 'k ]'`
Ui hca Uh]WJ'`mfYW']j Y'U'h]W\_Yhbi a VYfZ'Vi h]Zmci 'hY'Yd\cbY'mci 'k ]``bYYX'hc'gdYW]Z]WJ'`mUg\_'Zcf'cbY''
Hi fb]h]b'U'gc'dfcj ]XYg'i dXUhy'g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hyf''

; YbYfU`mž'UggYgga YbhiHug\_g'a i ghVY'gi Va ]hhYX'Y`YVWfcb]\WJ``mij ]U'Y]h\Yf'Hi fb]h]b'cf'U'A ccX`Y Ugg][ ba Ybh''=b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk ]```VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k ]h\U`hYfbUh]j Y'gi Va ]gg]cb'XYHJ]`g"

cfi]bZcfa Uhjcbicbi\ckihcigi Va ]hUgg][ ba Ybhgicbi]bYij ]UiA ccXiY.i\hdg.#gh XYbhi bgk "YXi "Ui #\ck! gi Va ]hUgg][ ba Ybha ccXiY

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

D`U[]Uf]ga `]g`i g]b[ 'h\Y`k cfXg`cf`]XYUg`cZch\Yfg`UbX`dfYgYbh]b[ 'h\Ya `Ug`mci f`ck b"`±hWJb`hU\_Y`a Ubm Zcfa gžZfca `XY`]VYfUhY`W\YUh]b[ 'hc`UWW]XYbhJ``mWcdm]b[ 'Zfca `U`gci fWY`k ]h\ci hUW\_bck `YX[ Ya Ybh'

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

 $7 \text{ cdm}b[...i g]b[...h\Y.gUa Y.cf.j Yfmig]a] \Uf'k cfXg'hc'h\Y.cf][]bU''hYl h'cf']XYU'k]h\ci h'U\V_bck `YX[]b[...h\Y.cf][]bU''hYl h'cf']XYU'k]h'cf']$ 



# 5WUXYa]W±bZcfaUhjcb

: cf `YggYbh]U``ghi XYbh]bZcfa Uh]cb `fY`Uh]b[ `hc.

