

KIC 010620329

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010620329-01	OBS	0066.01	0.872559	132.312842	204.5	0.756	55.6	118.1	2.62	8491	4.41	68039.11
010620329-02	OBS	No	0.872572	131.868977	209.9	0.762	109.2	130.0	2.62	8491	4.47	68037.74
010620329-03	OBS	No	0.872566	132.092244	106.6	1.500	18.5	-1.0	2.62	8491	2.75	68038.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010620329-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—CENT_SATURATED
010620329-02	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010620329-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010620329-01

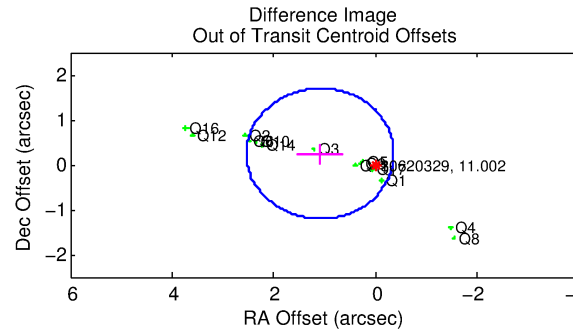
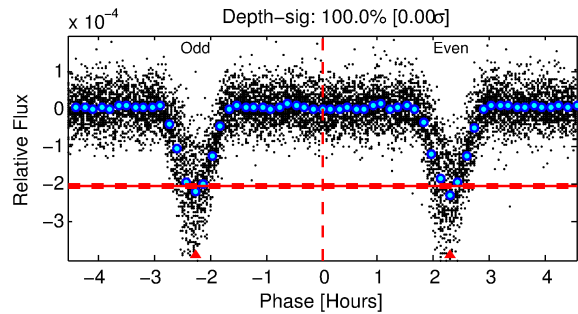
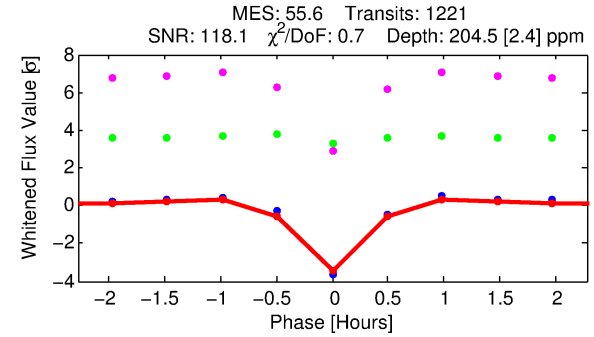
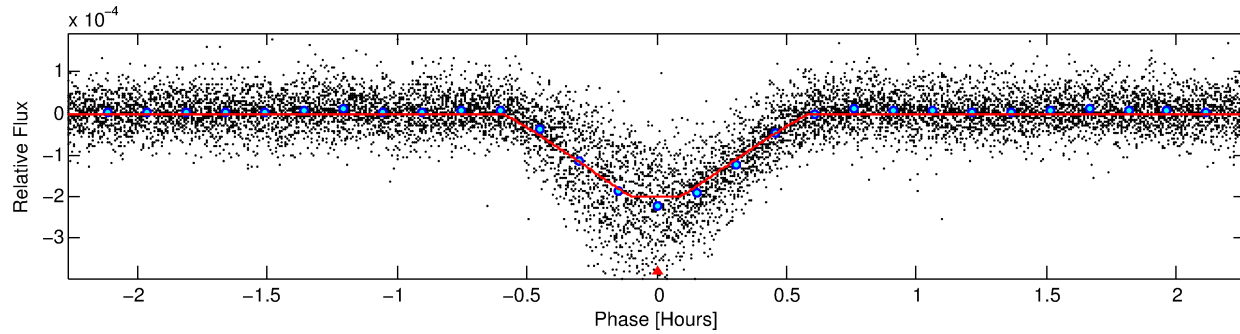
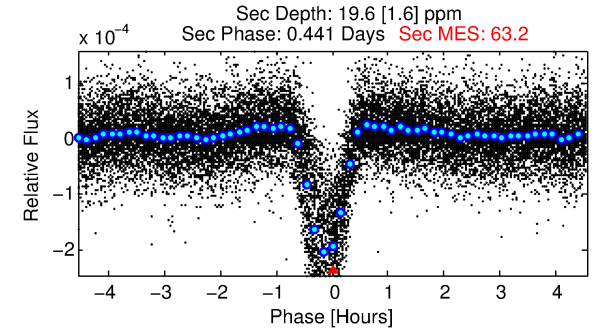
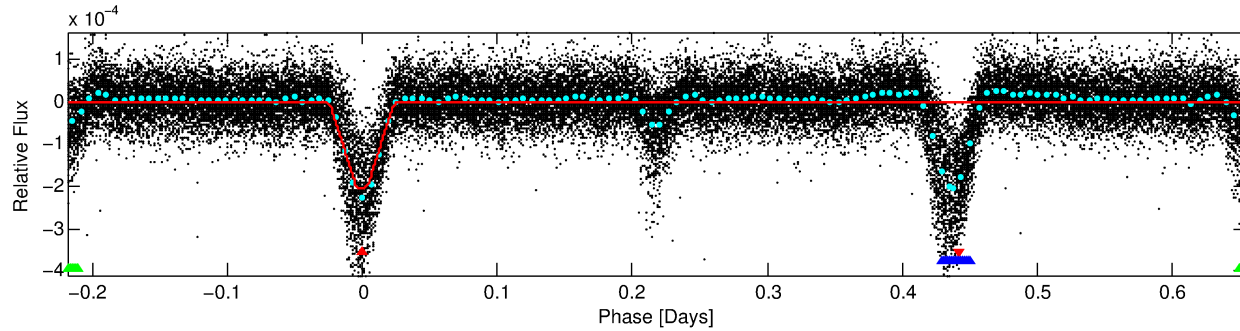
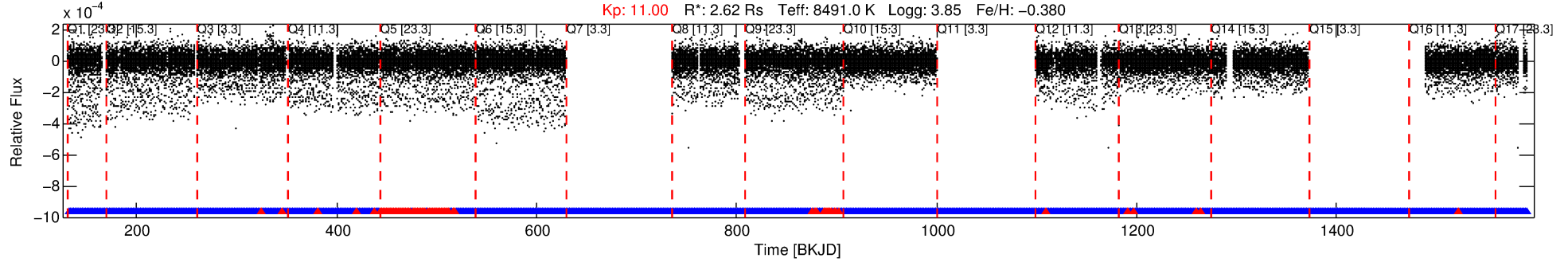
No Significant Match Found

DV One-Page Summary

KIC: 10620329 Candidate: 1 of 3 Period: 0.873 d

KOI: K00066 Corr: No Ephemeris Match

Kp: 11.00 R*: 2.62 Rs Teff: 8491.0 K Logg: 3.85 Fe/H: -0.380



DV Fit Results:

Period = 0.87256 [0.00000] d
Epoch = 132.3128 [0.0001] BKJD
Rp/R* = 0.0154 [0.0005]
a/R* = 4.25 [0.79]
b = 0.90 [0.04]
Seff = 68039.11 [27040.22]
Teq = 4118 [409] K
Rp = 4.41 [1.14] Re
a = 0.0217 [0.0054] AU
Ag = 0.26 [0.11] [-6.94σ]
Teffp = 4552 [125] K [1.01σ]

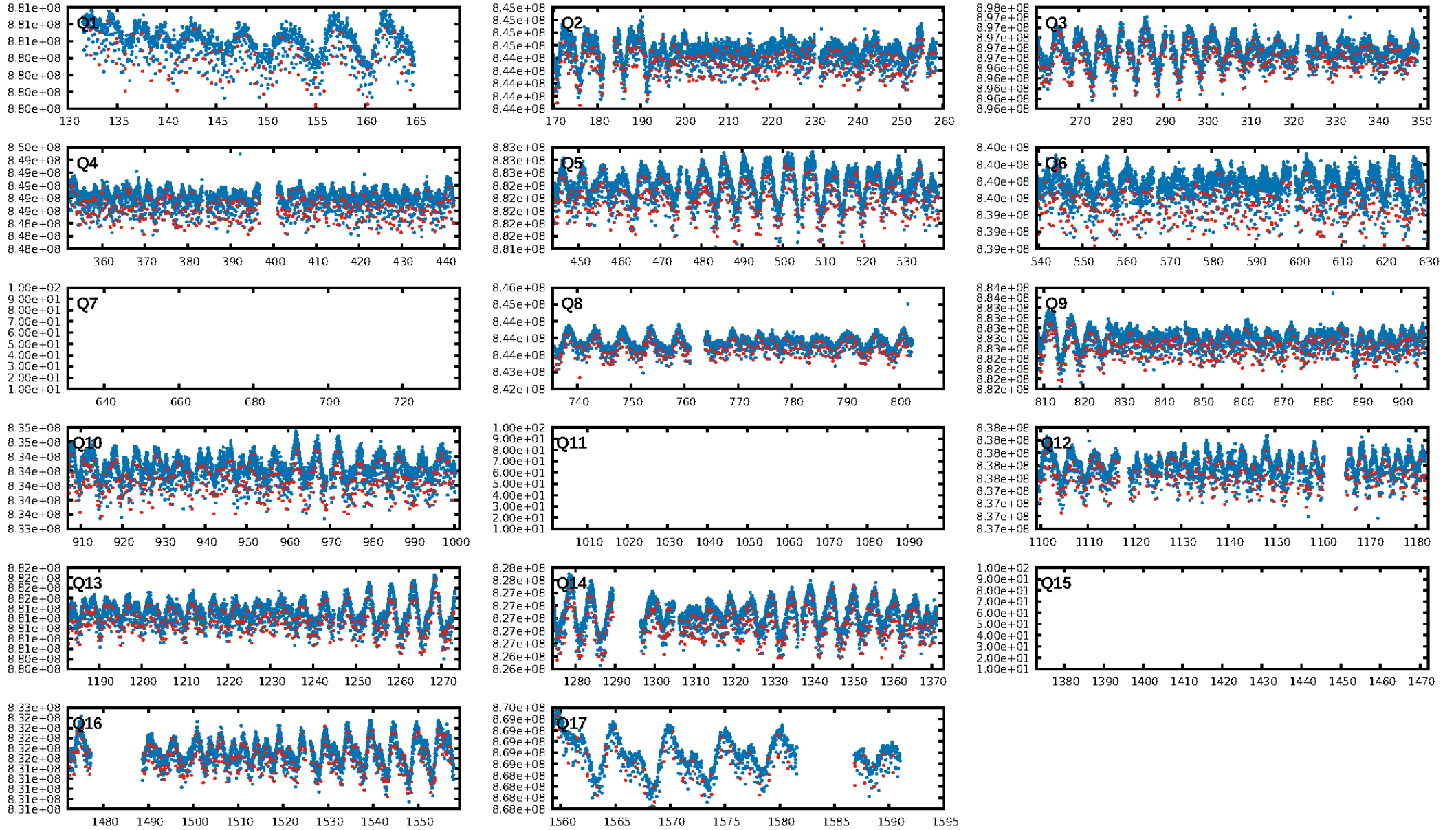
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [1061/1153]
GhostDiagnostic-chr: 8.339
Centroid-sig: N/A
Centroid-so: 0.376 arcsec [3.57σ]
OotOffset-rm: 1.117 arcsec [2.31σ]
KicOffset-rm: 1.000 arcsec [2.05σ]
OotOffset-st: 4/1/4/5 [14]
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DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 0.00 [0/14]

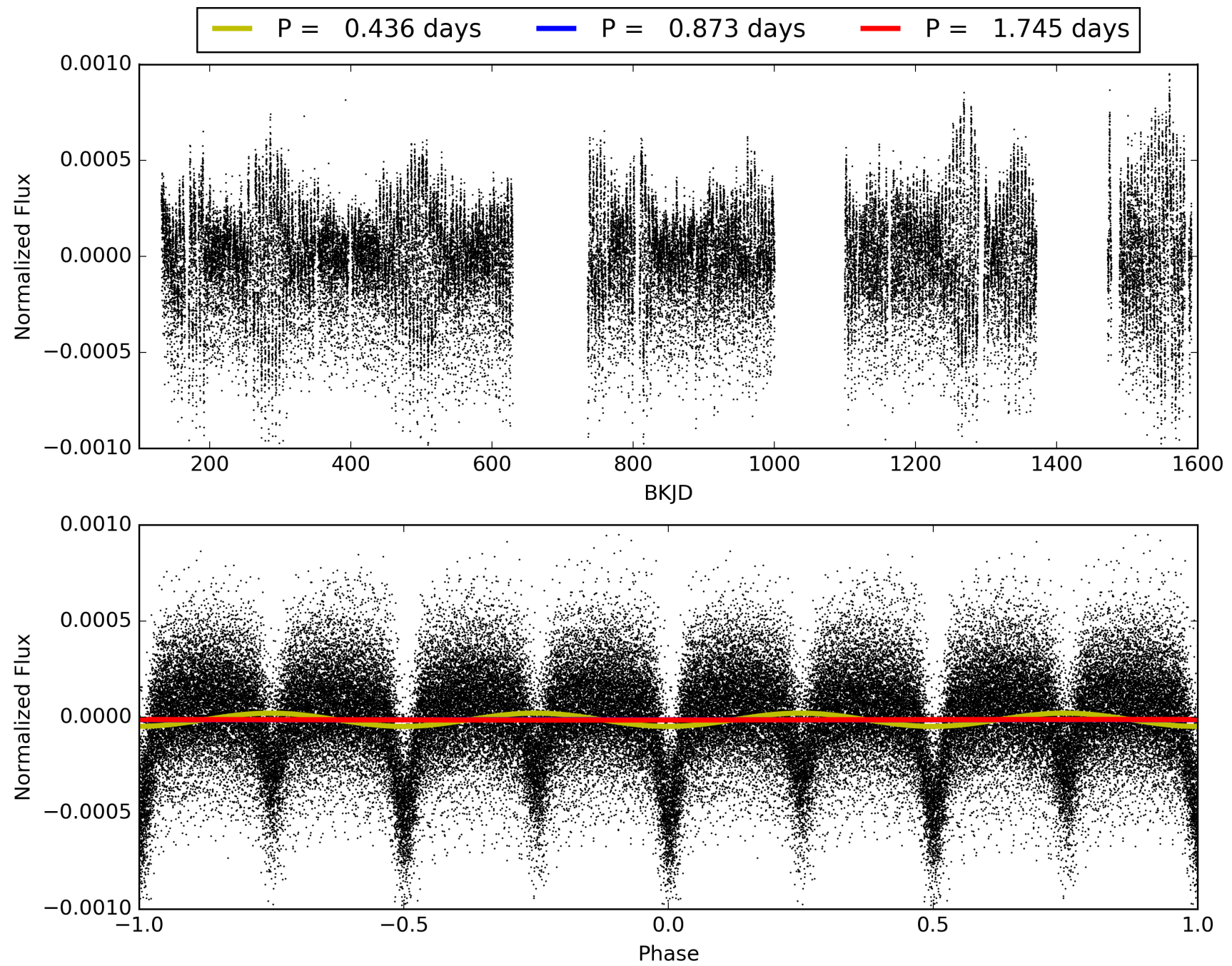
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:03:04 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010620329-01, PDC Light Curves

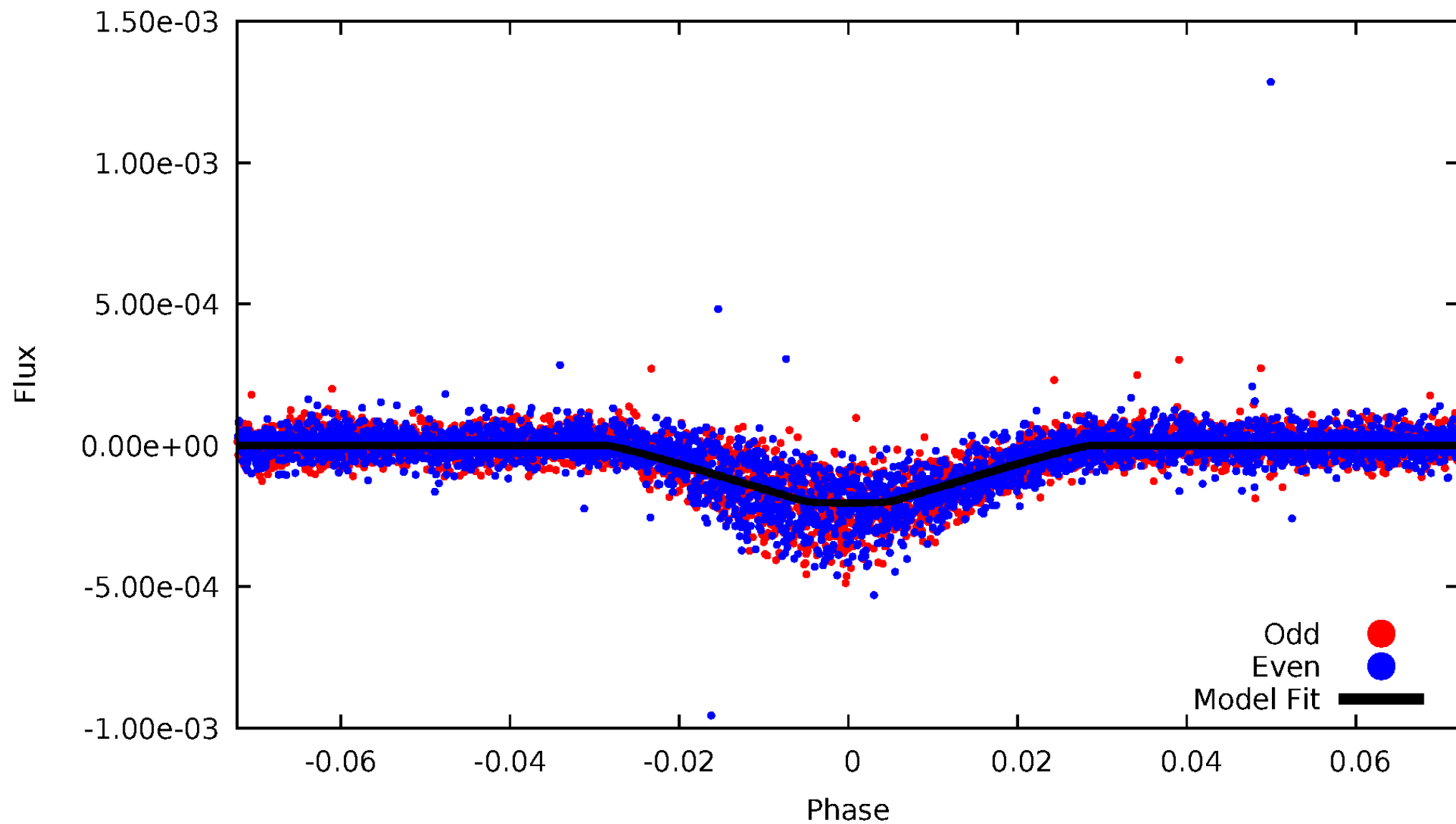


TCE 010620329-01



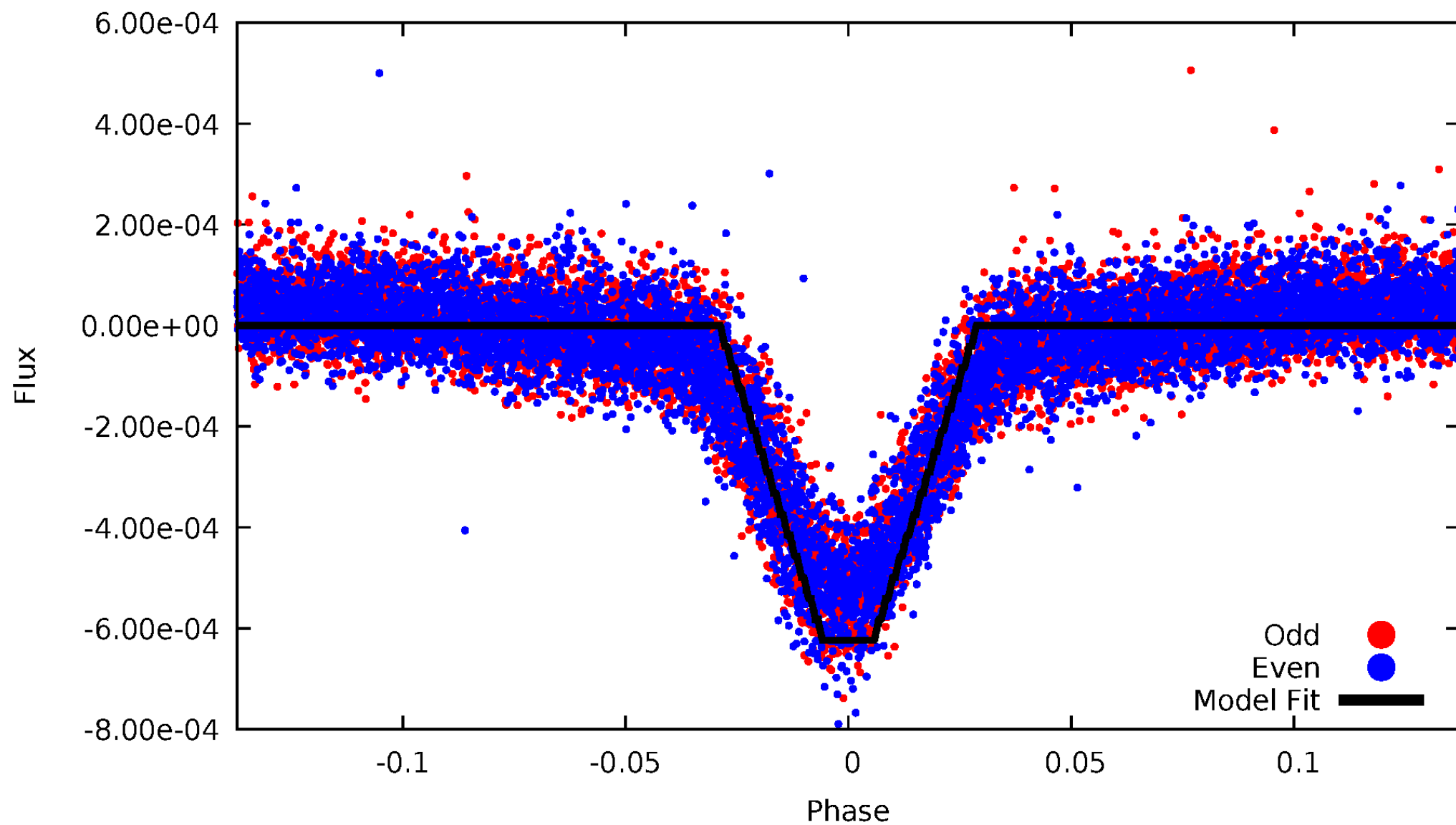
DV Odd/Even

TCE 010620329-01



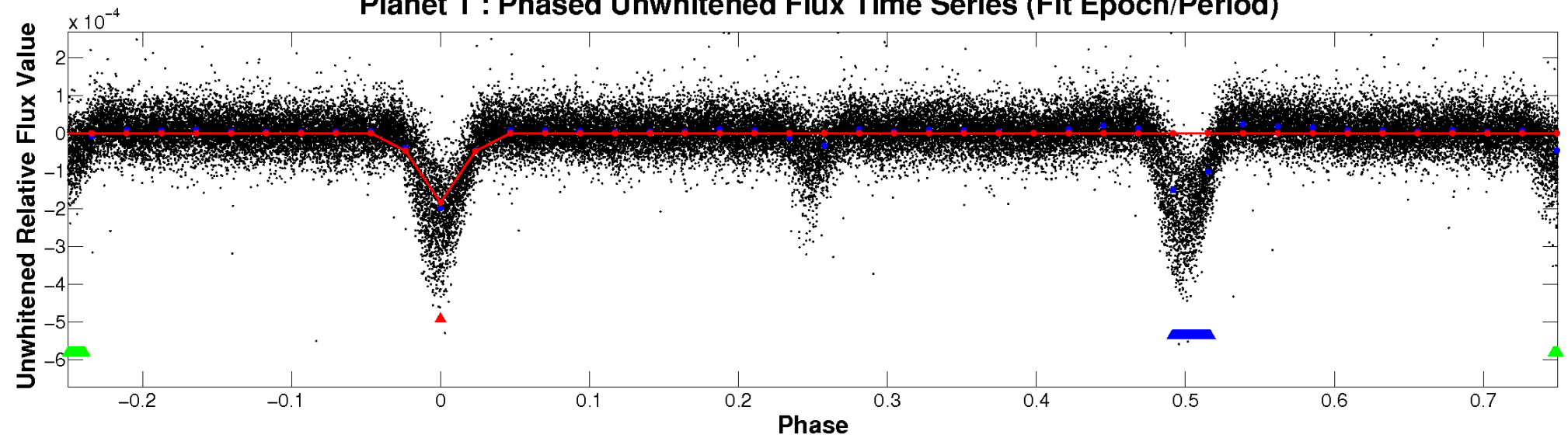
ALT Odd/Even

TCE 010620329-01

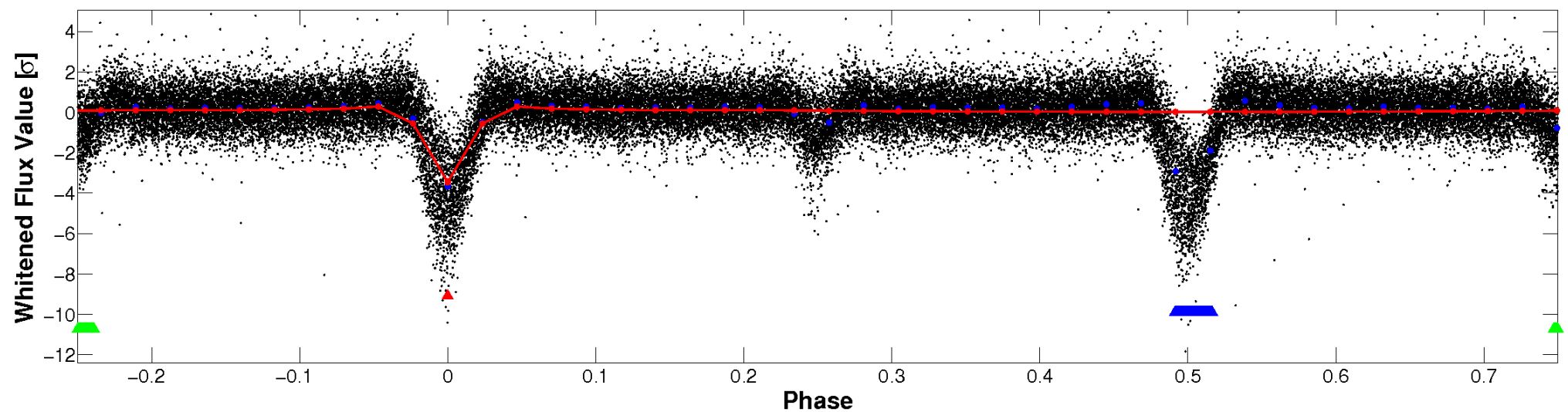


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

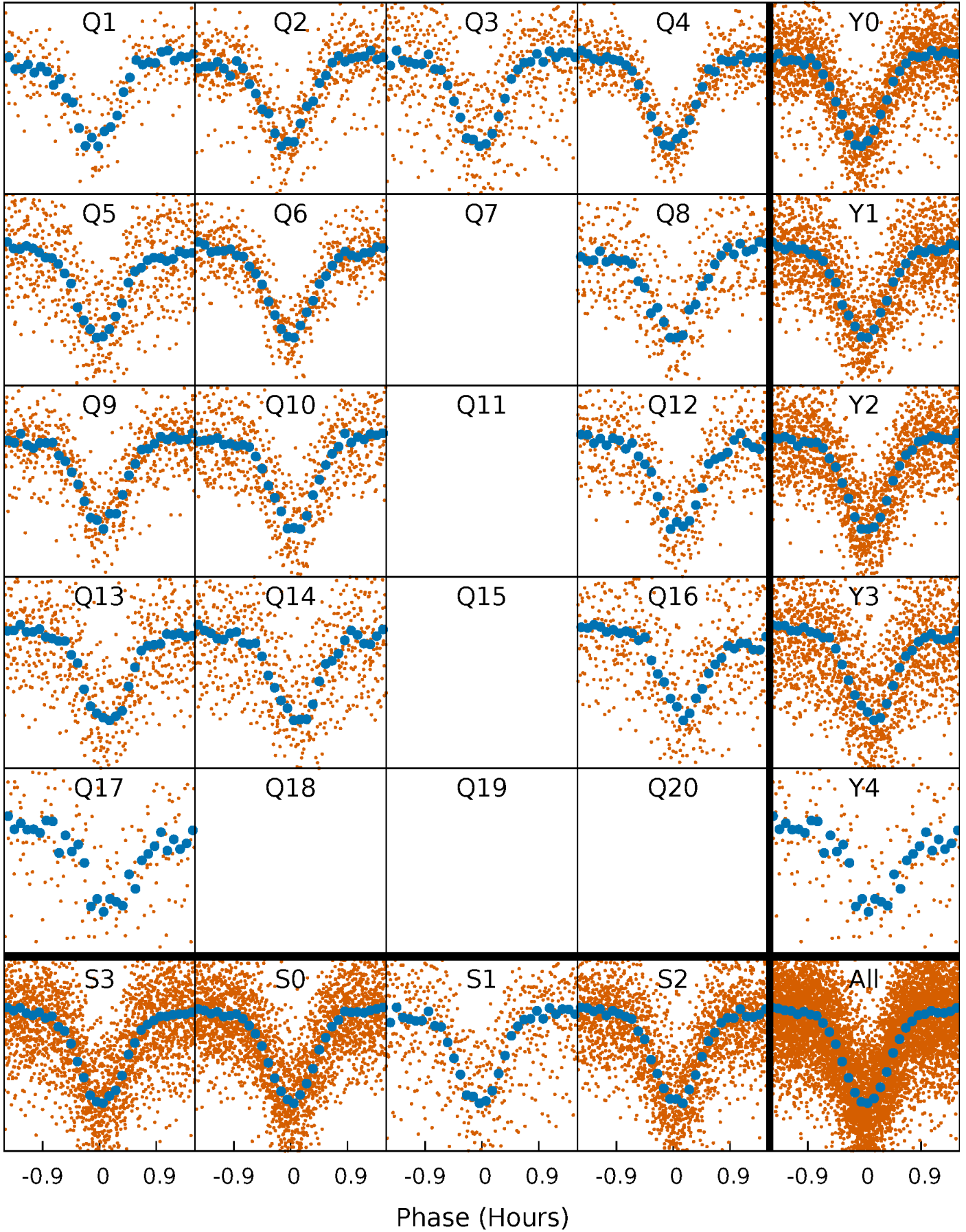


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



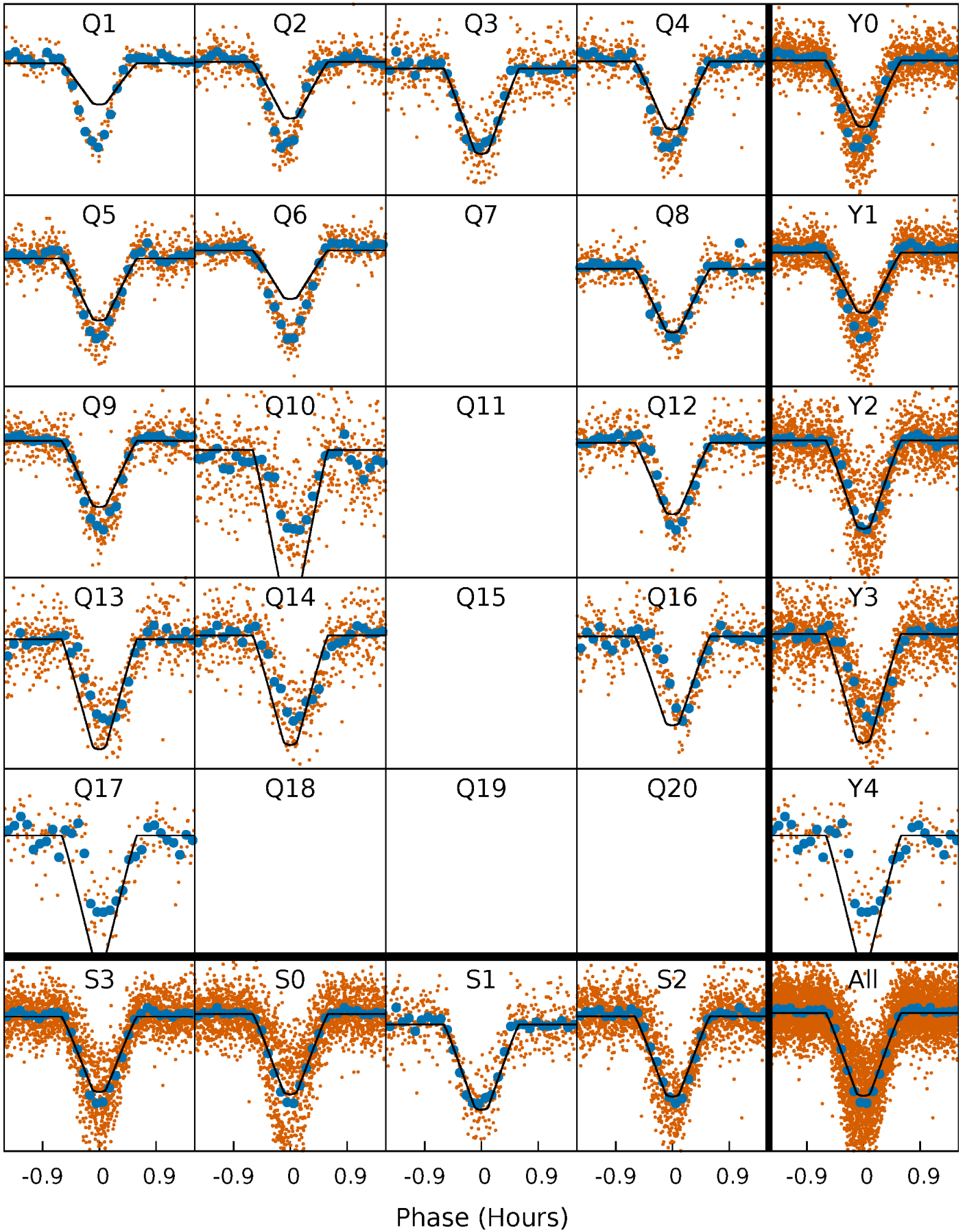
PDC Quarter-Phased Transit Curves

TCE 010620329-01 P= 0.872559 Days $T_0=132.312842$ (BKJD)



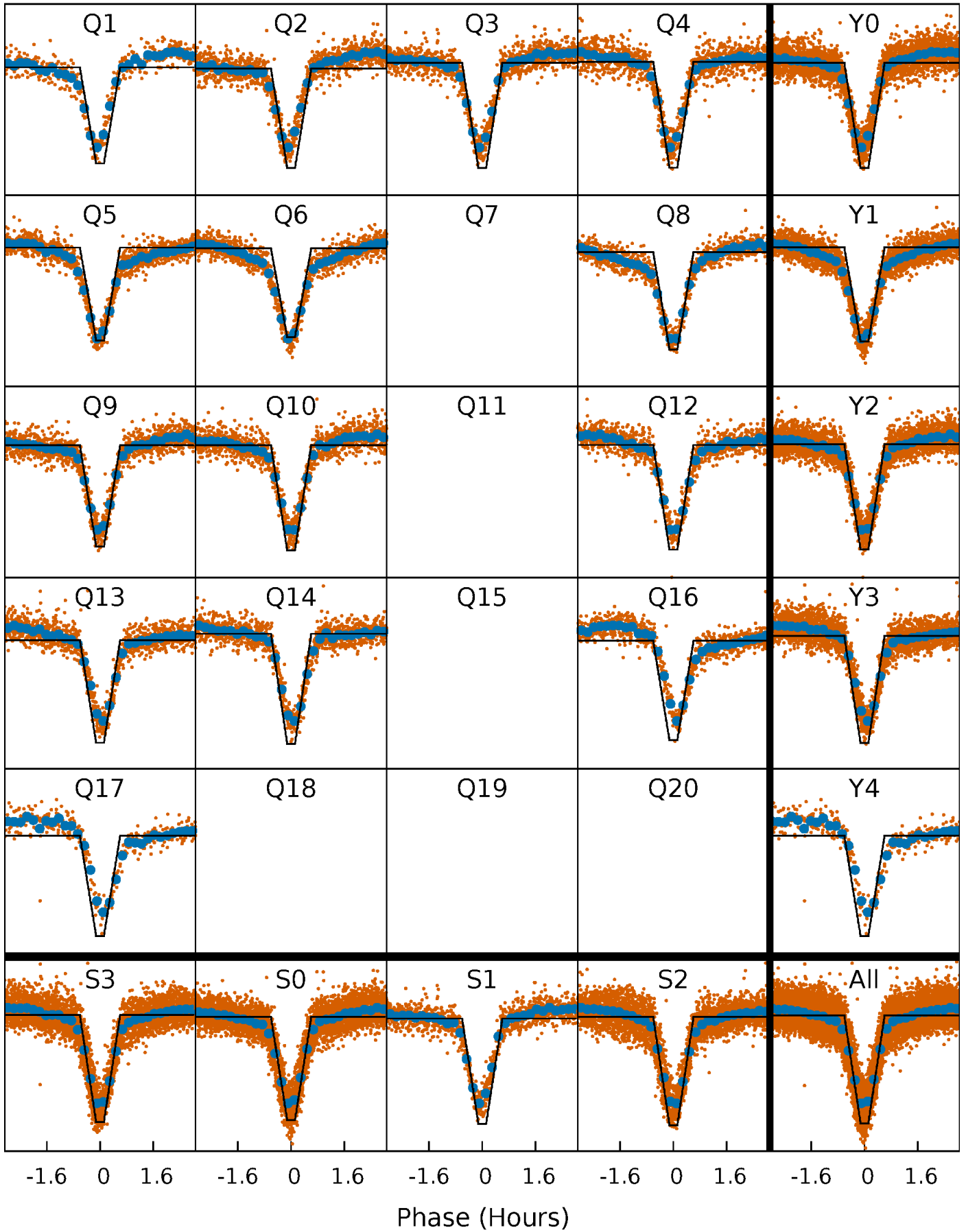
DV Quarter-Phased Transit Curves

TCE 010620329-01 P= 0.872559 Days $T_0=132.312842$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

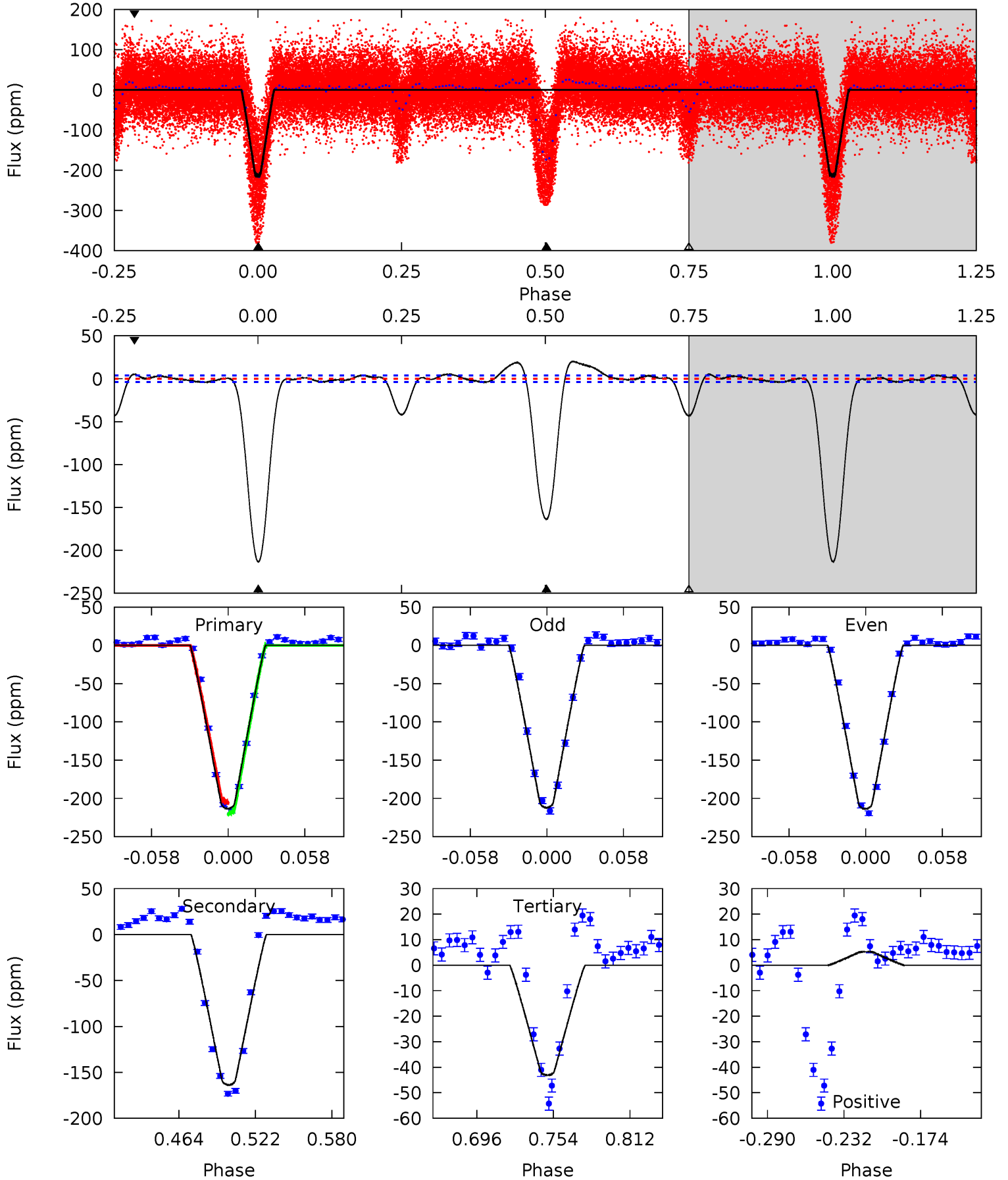
TCE 010620329-01 P= 0.872560 Days $T_0=132.313514$ (BKJD)



DV Model-Shift Uniqueness Test

010620329-01, P = 0.872559 Days, E = 131.440283 Days

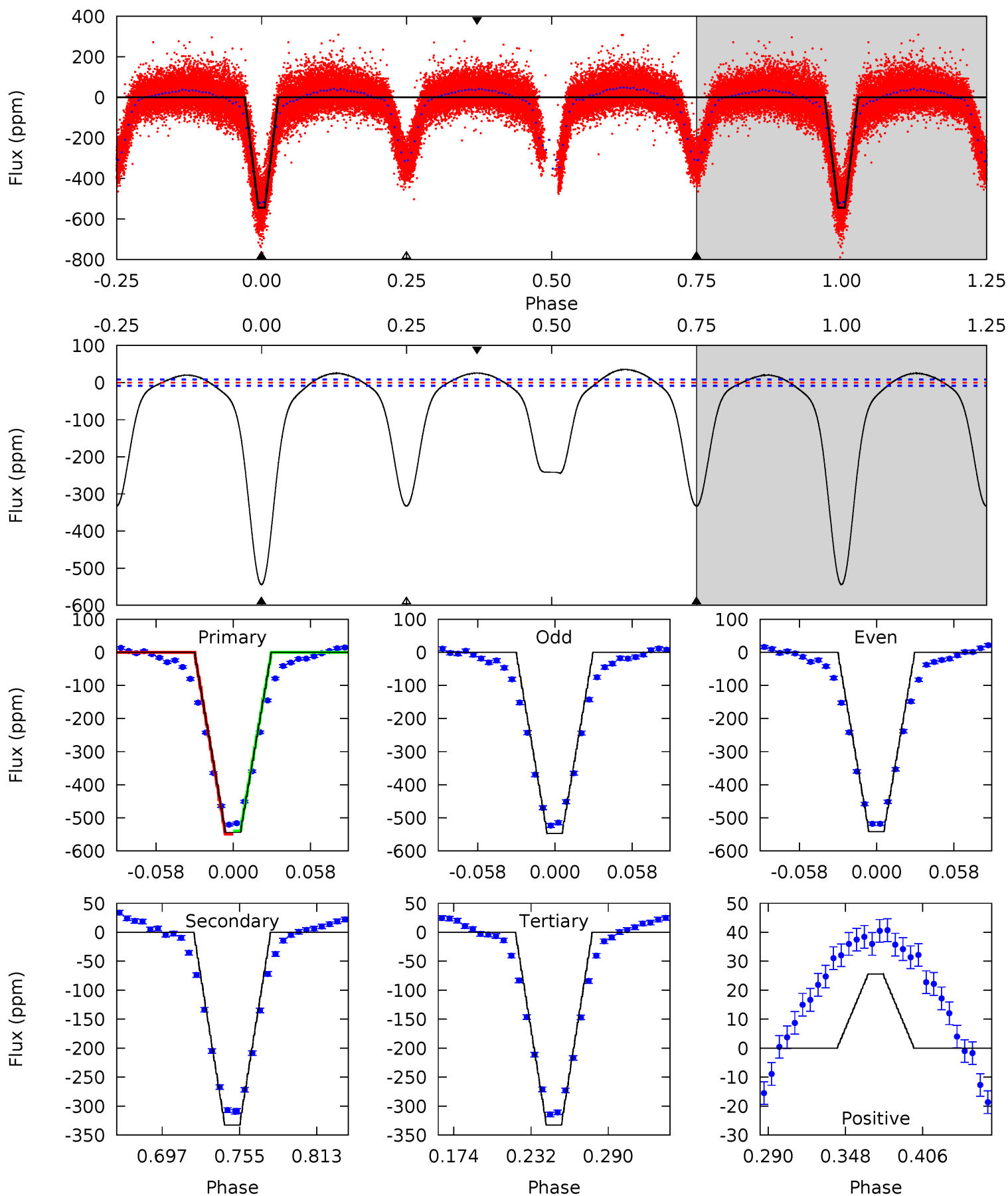
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
262.5	201.5	53.0	6.45	4.68	1.90	13.6	209.4	256.0	148.4	195.0	1.03	1.02	0.09	9.42



Alt Model-Shift Uniqueness Test

010620329-01, P = 0.872560 Days, E = 131.440954 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
305.2	186.7	186.6	14.3	4.68	1.90	48.4	118.6	290.8	0.12	172.4	1.62	1.01	0.06	2.66



Stellar Parameters For KIC 010620329

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8491^{+67}_{-93}	$3.853^{+0.232}_{-0.058}$	$-0.380^{+0.050}_{-0.150}$	$2.622^{+0.288}_{-0.672}$	$1.791^{+0.045}_{-0.153}$	$0.140^{+0.172}_{-0.033}$
	+1%/-1%	+6%/-2%	+13%/-39%	+11%/-26%	+3%/-9%	+123%/-23%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010620329-01 / KOI 0066.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-164 ± 1	$4.27^{+0.37}_{-0.62}$	5664^{+218}_{-397}	7286^{+159}_{-168}	$2.320^{+0.809}_{-0.345}$
Alt.	-333 ± 2	$6.86^{+0.60}_{-0.91}$	5637^{+223}_{-387}	6694^{+121}_{-113}	$1.819^{+0.573}_{-0.266}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

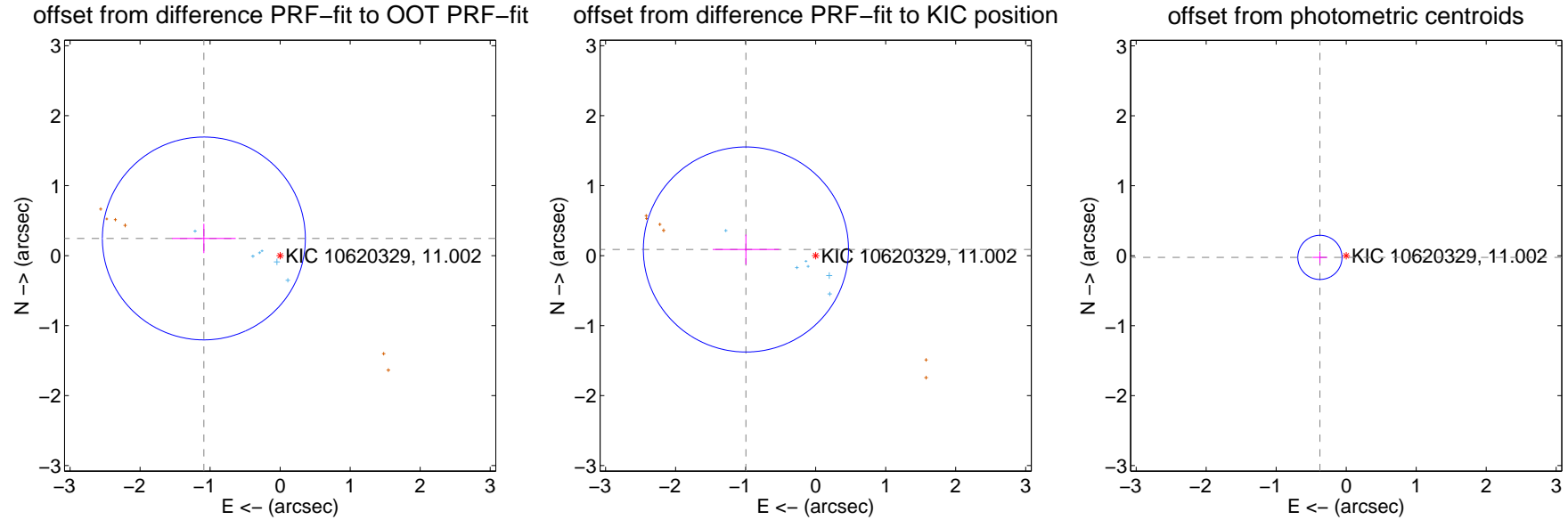
DV Centroid Data

Supplemental centroid analysis for 010620329-01. **Kepler magnitude: 11.00.** Transit SNR 118.12

There are 8 quarters with good PRF difference image offsets

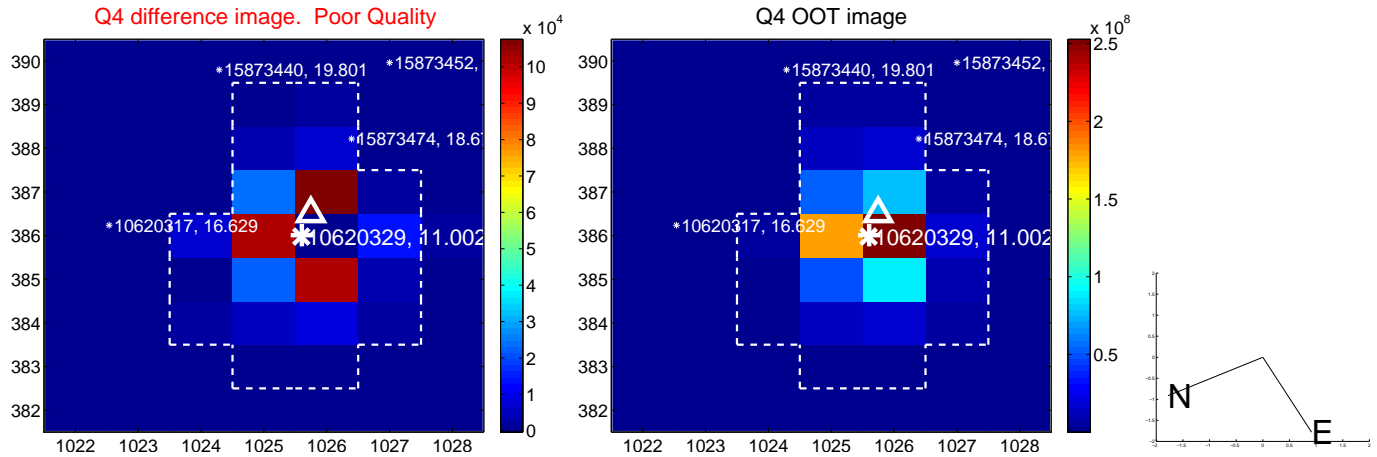
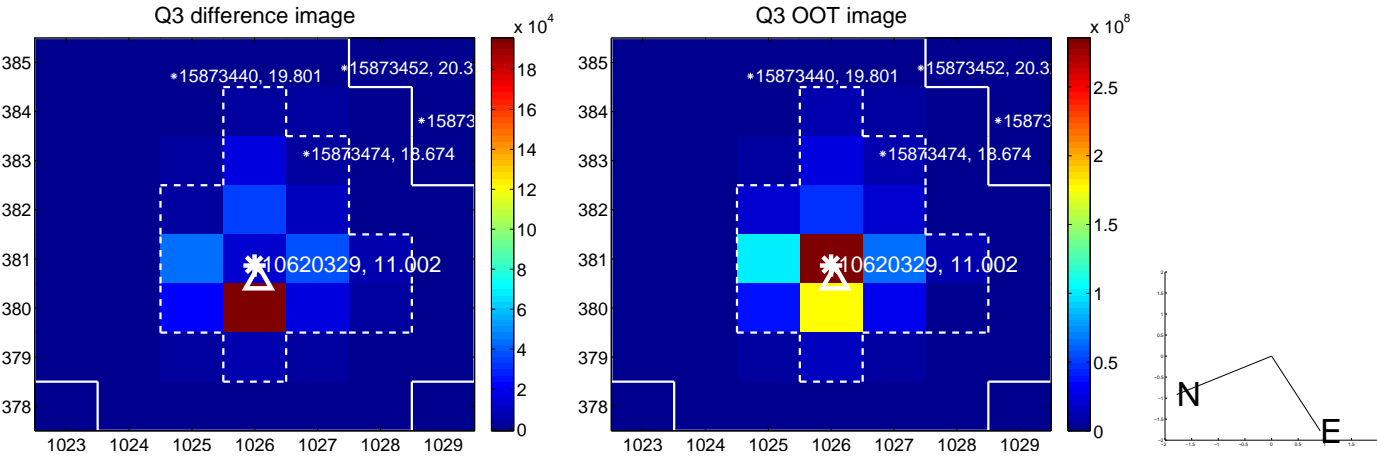
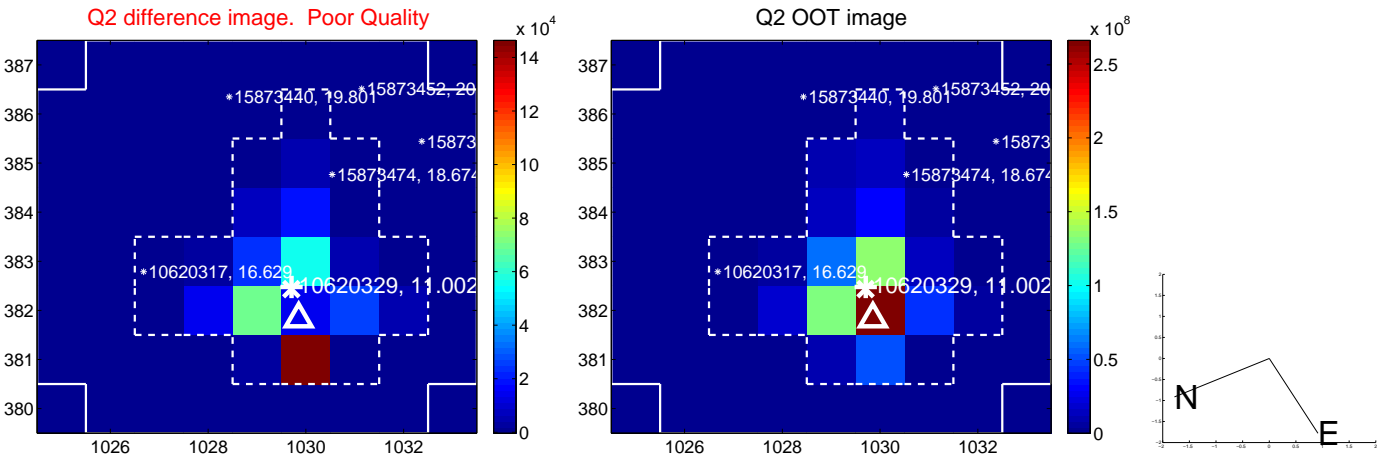
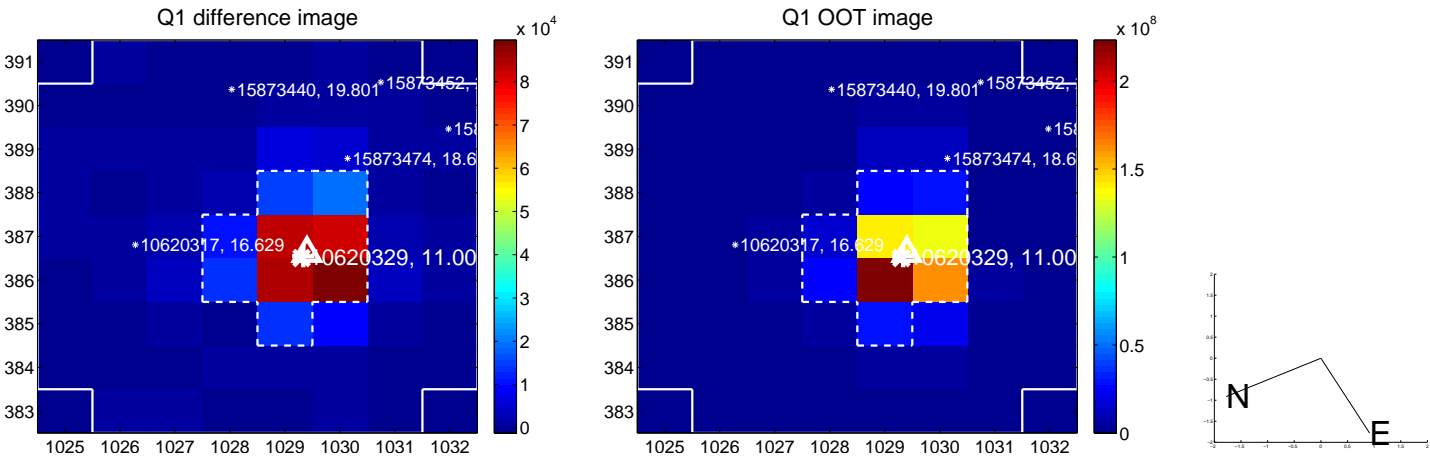
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.117 ± 0.483	2.31	1.090 ± 0.455	0.246 ± 0.209
PRF-fit source offset from KIC position	1.000 ± 0.488	2.05	0.996 ± 0.474	0.088 ± 0.214
photometric centroid source offset	0.38 ± 0.11	3.57	0.38 ± 0.11	-0.02 ± 0.08

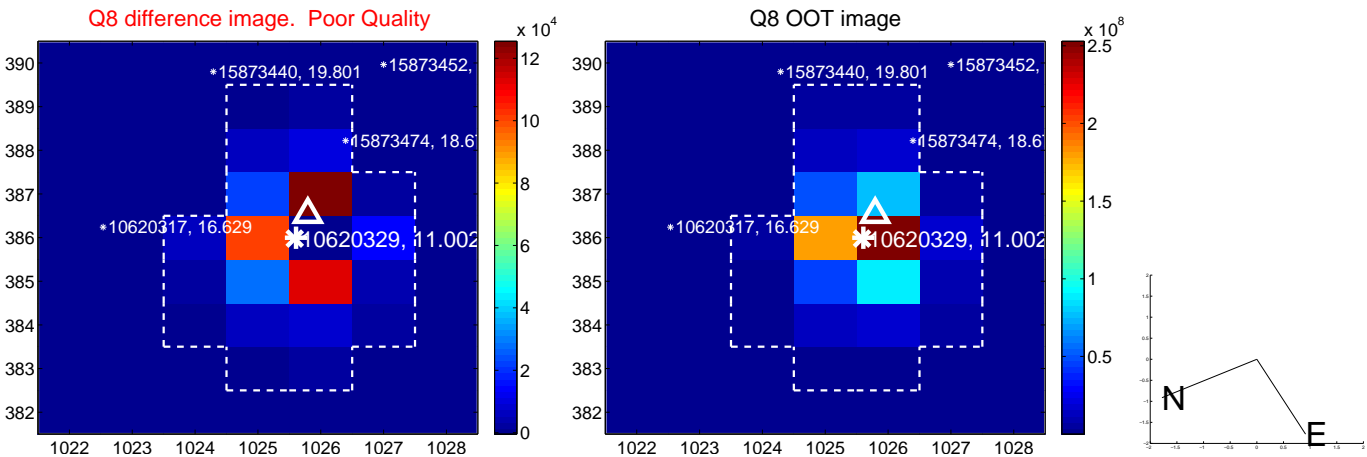
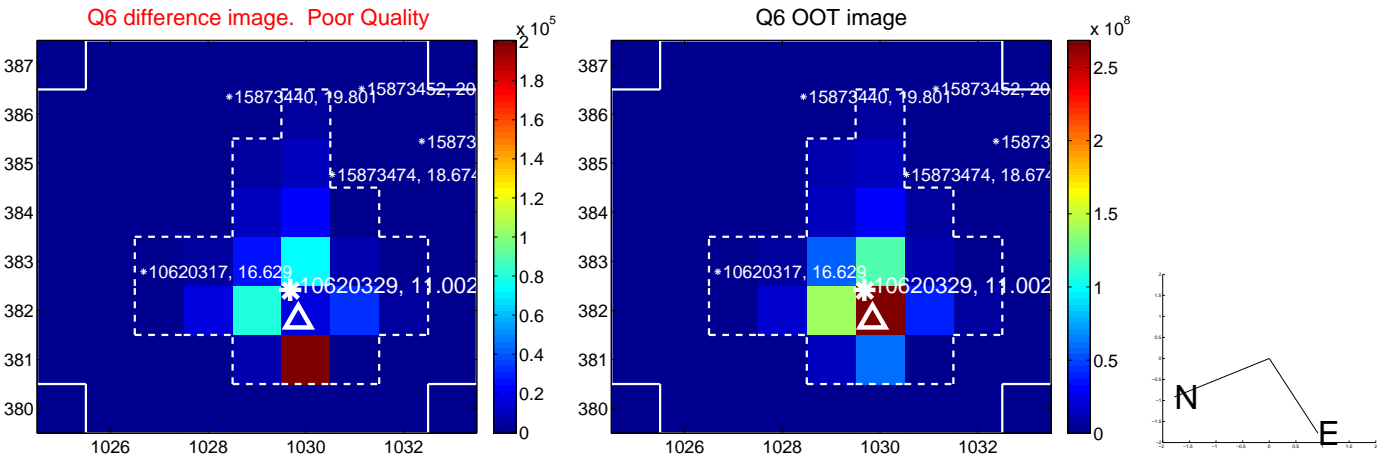
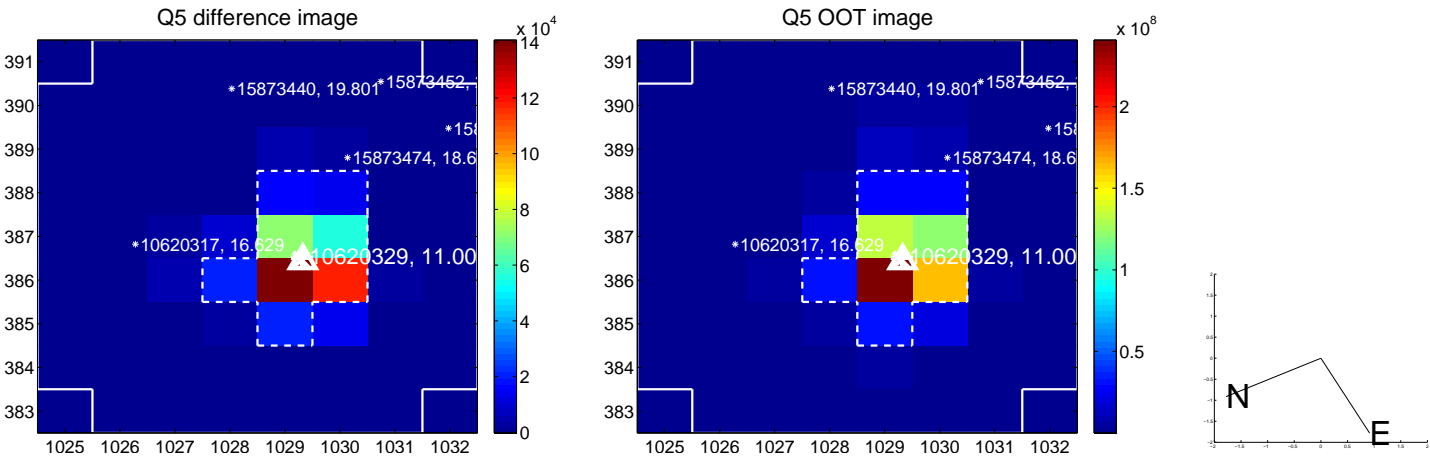


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

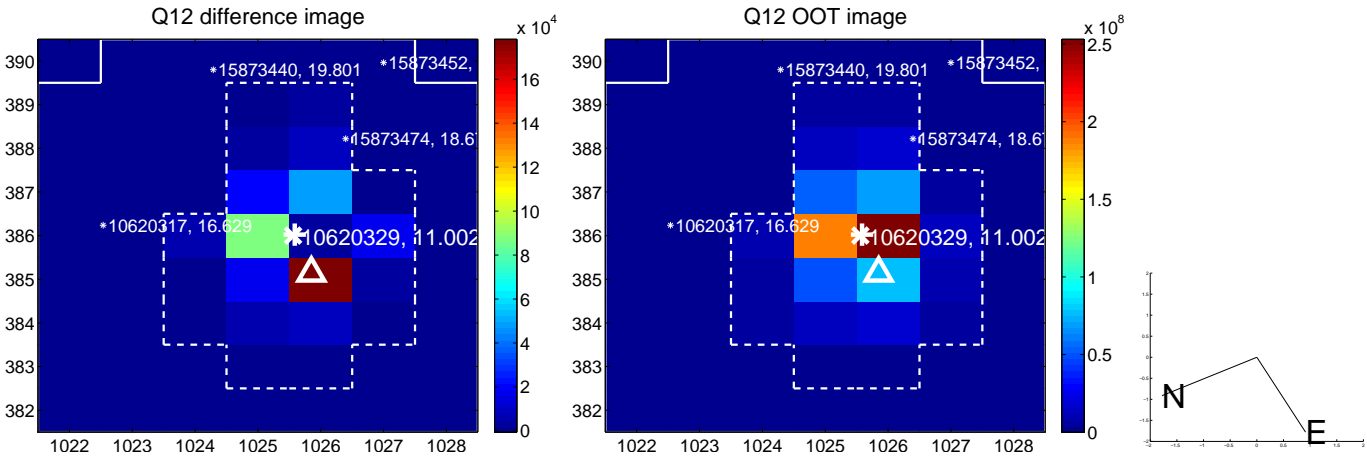
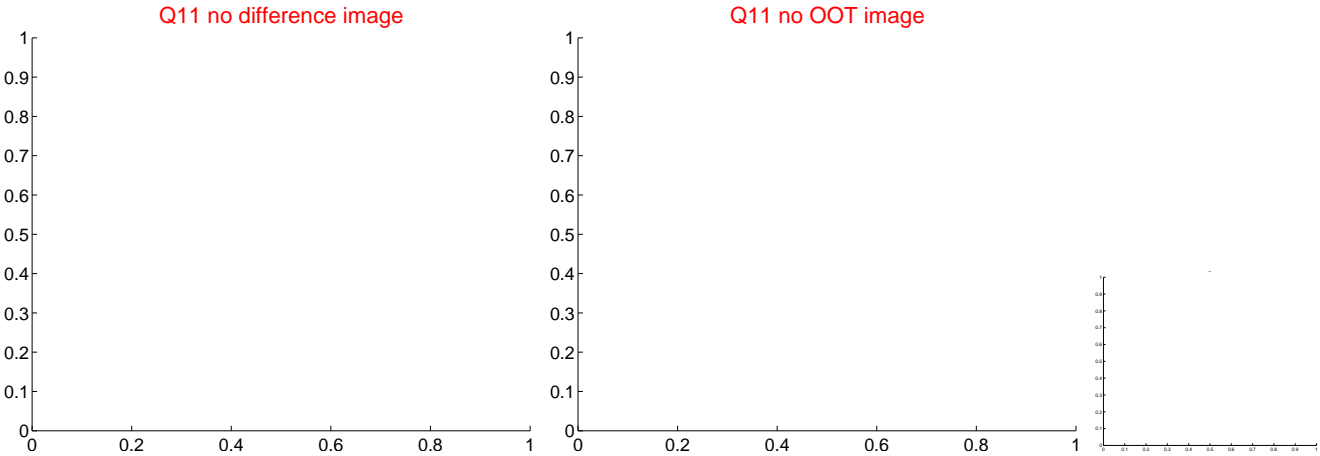
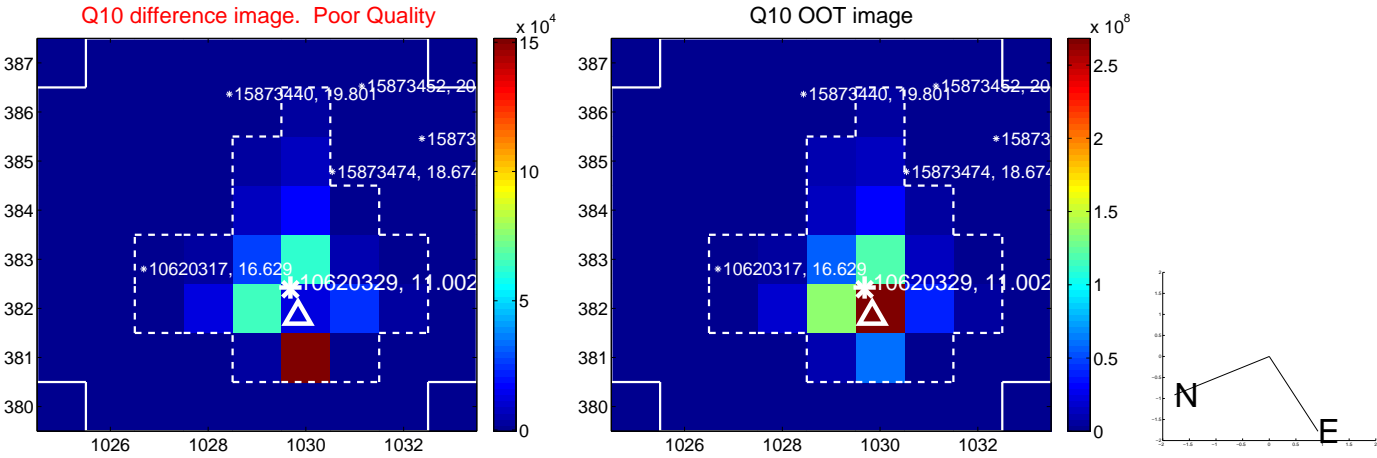
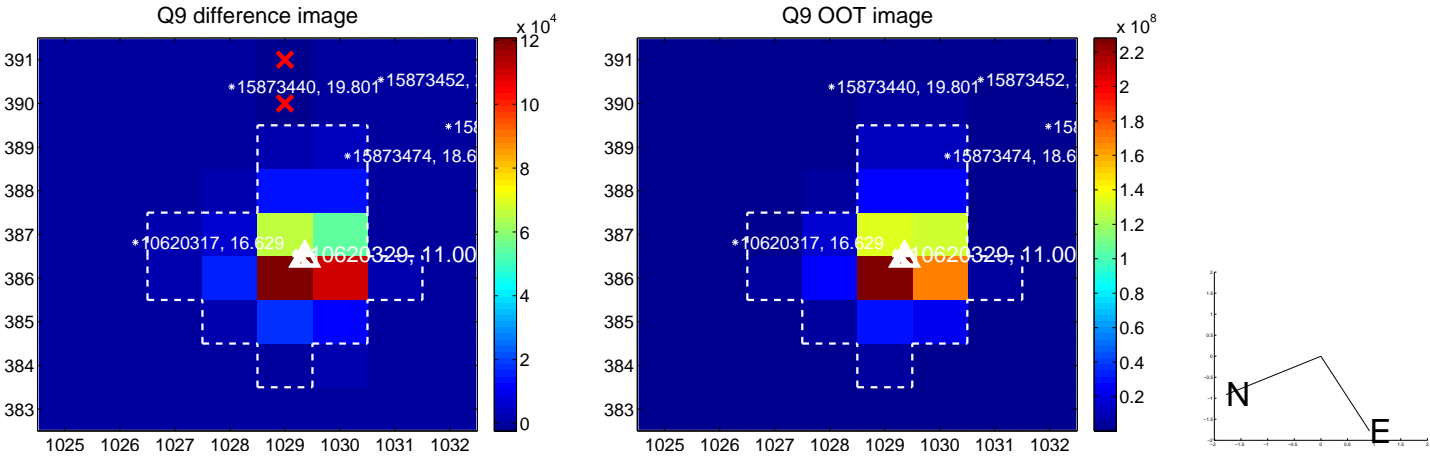
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



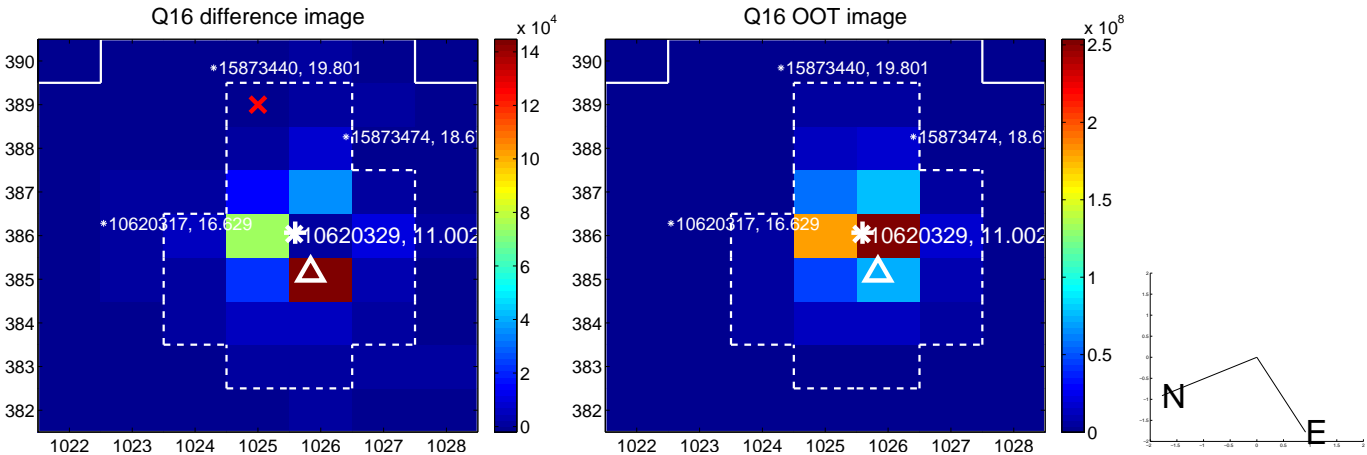
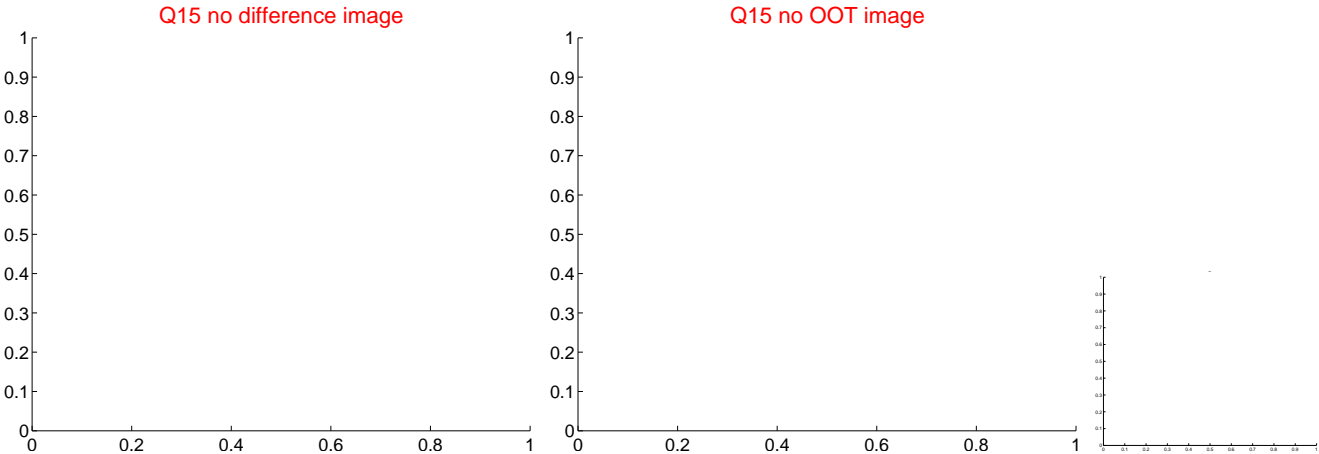
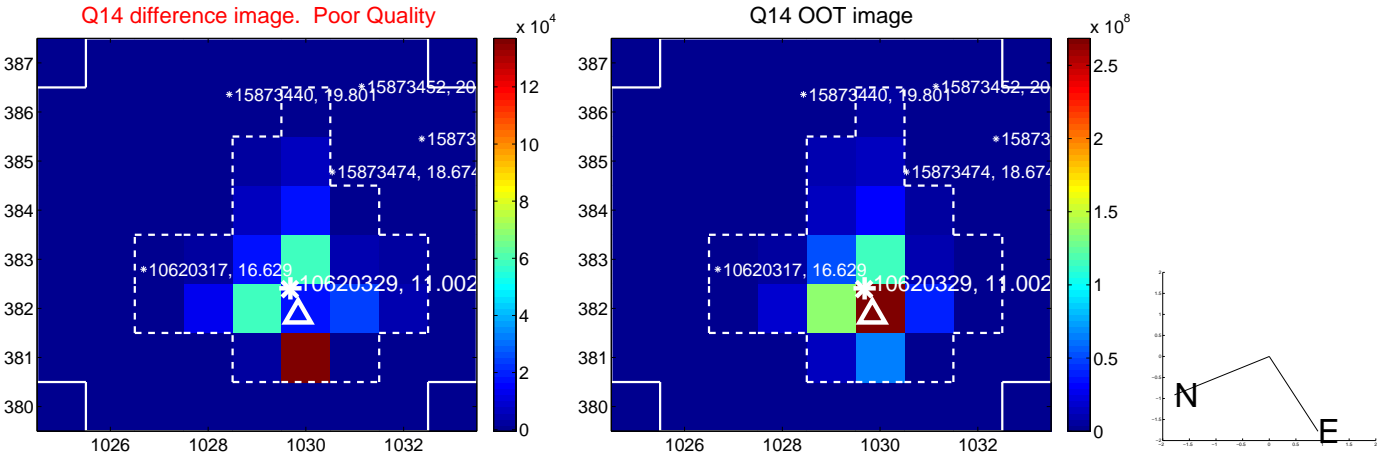
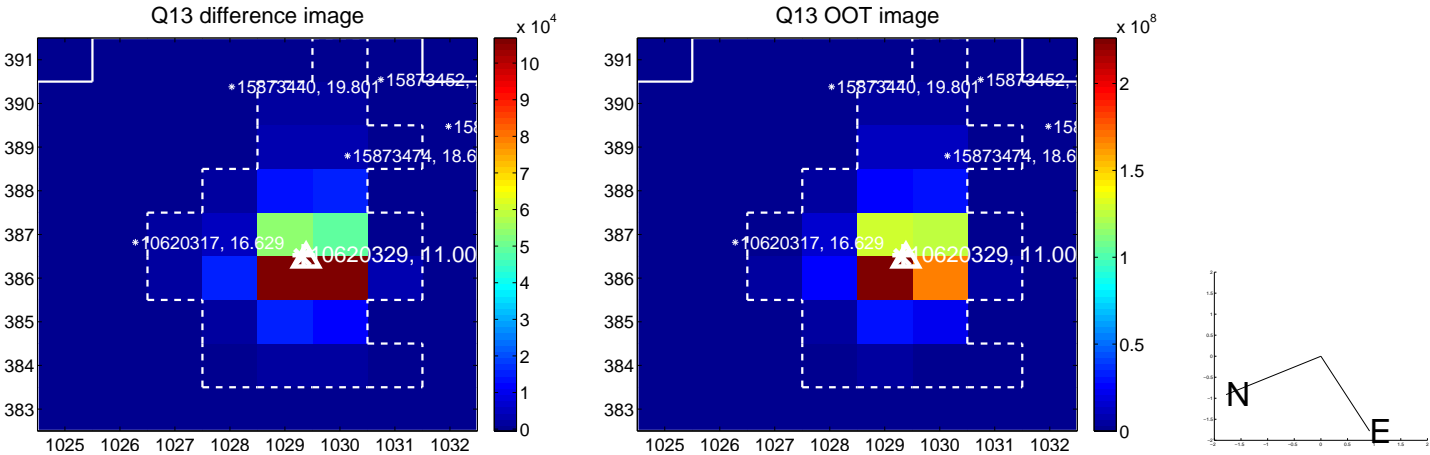
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



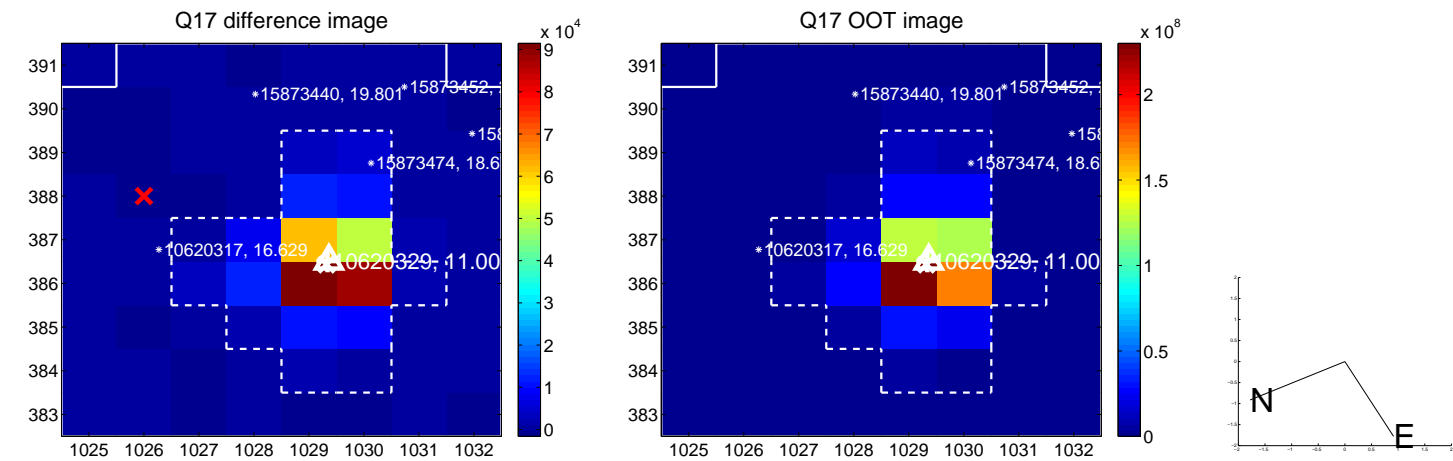
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



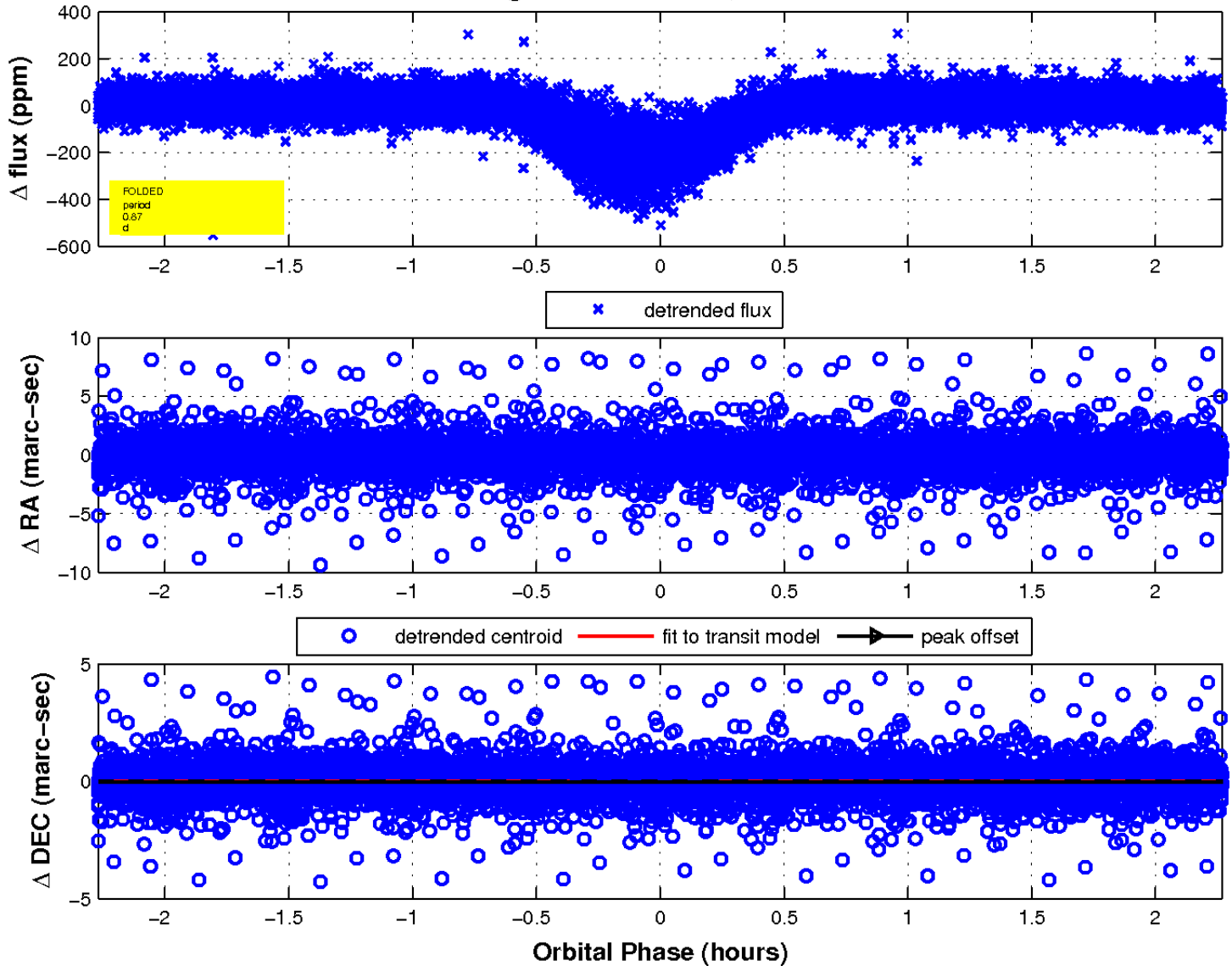
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

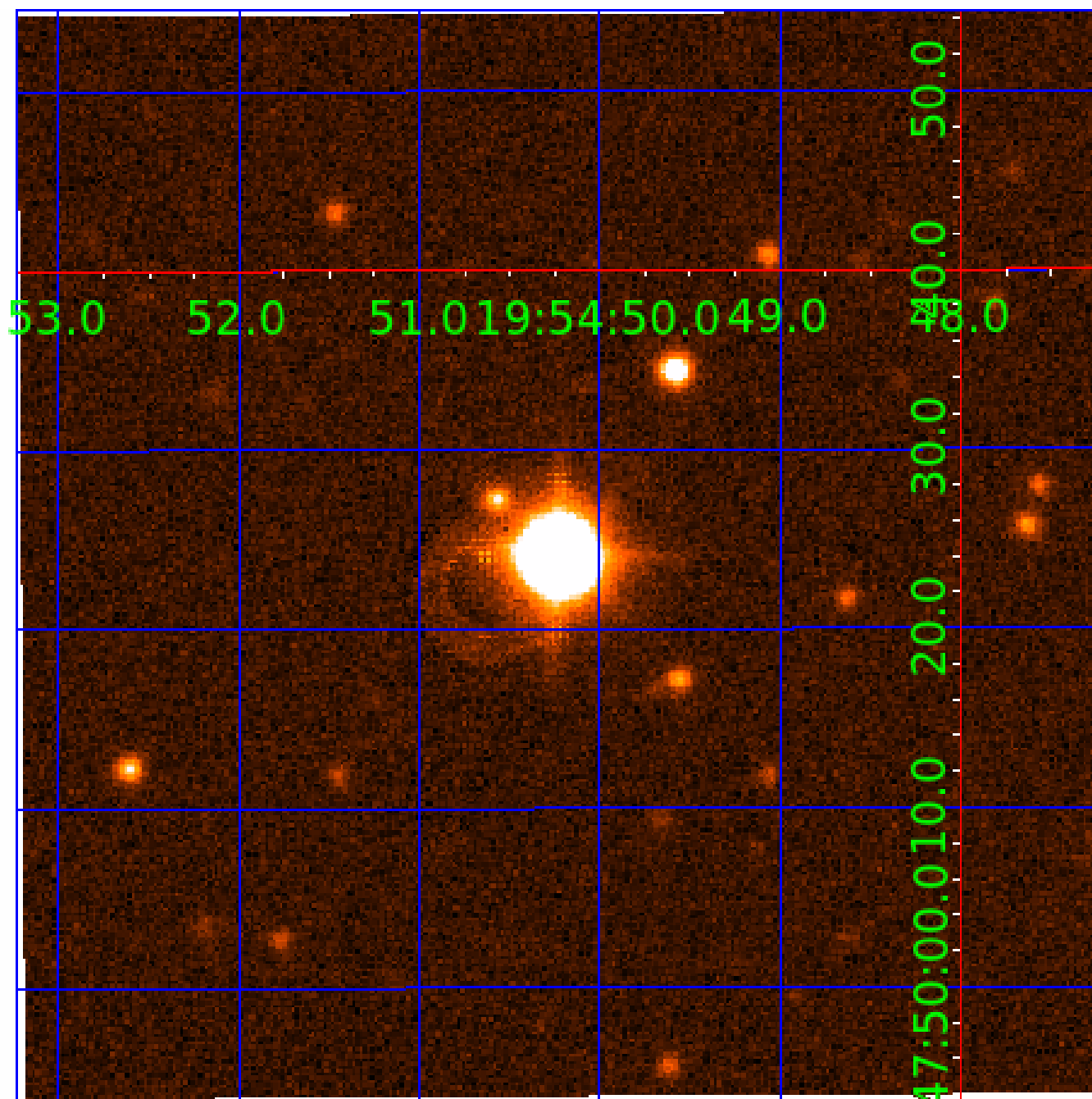


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 010620329

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010620329-01	OBS	0066.01	0.872559	132.312842	204.5	0.756	55.6	118.1	2.62	8491	4.41	68039.11
010620329-02	OBS	No	0.872572	131.868977	209.9	0.762	109.2	130.0	2.62	8491	4.47	68037.74
010620329-03	OBS	No	0.872566	132.092244	106.6	1.500	18.5	-1.0	2.62	8491	2.75	68038.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010620329-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—CENT_SATURATED
010620329-02	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010620329-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

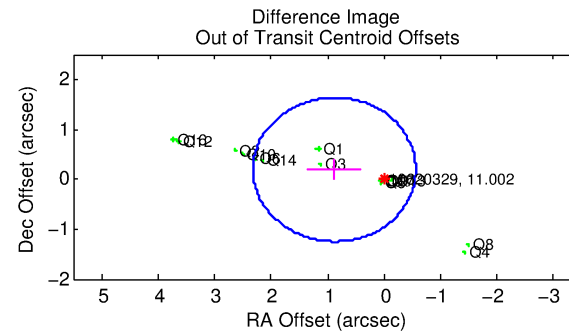
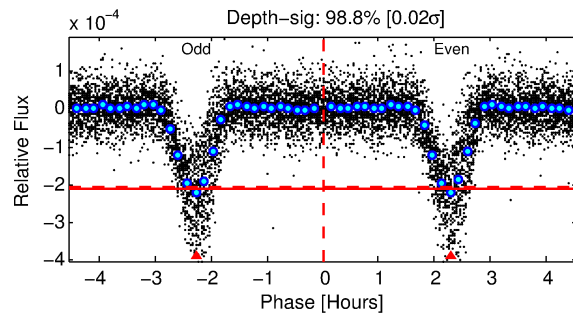
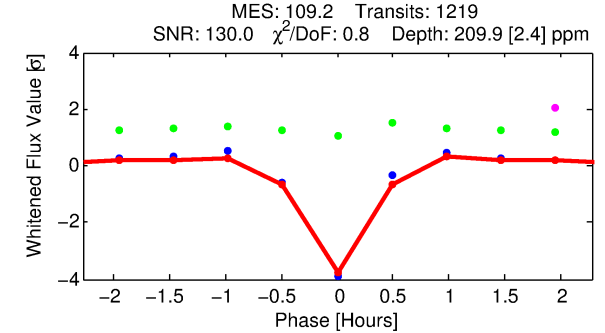
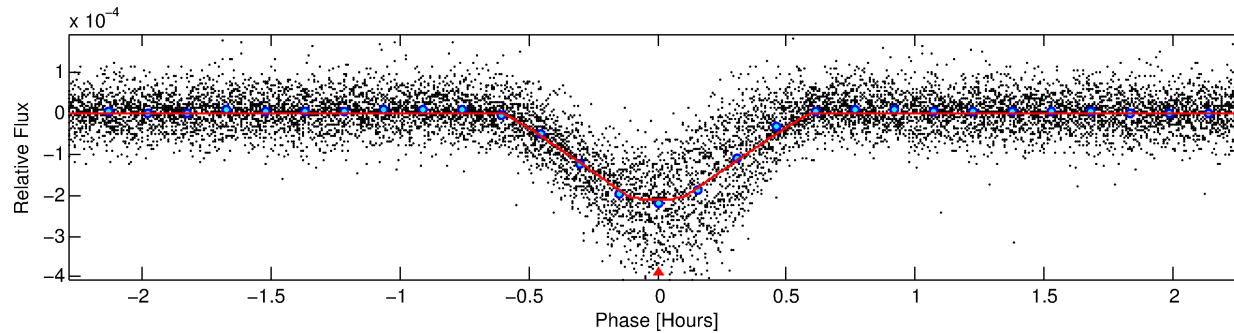
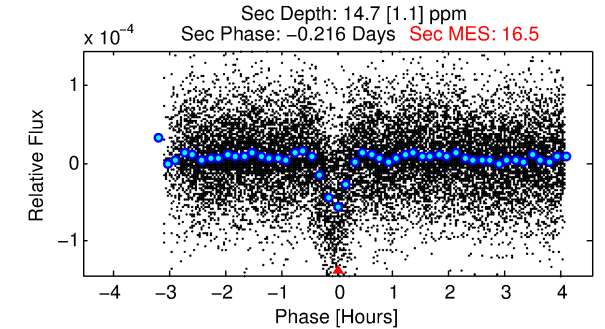
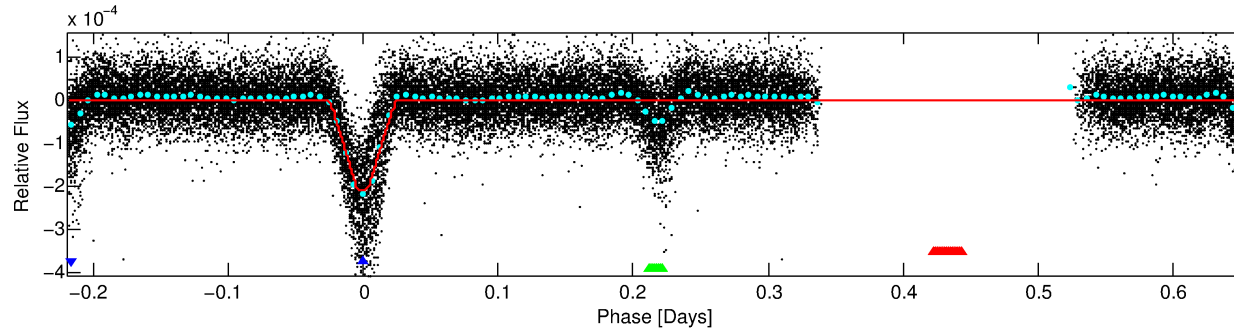
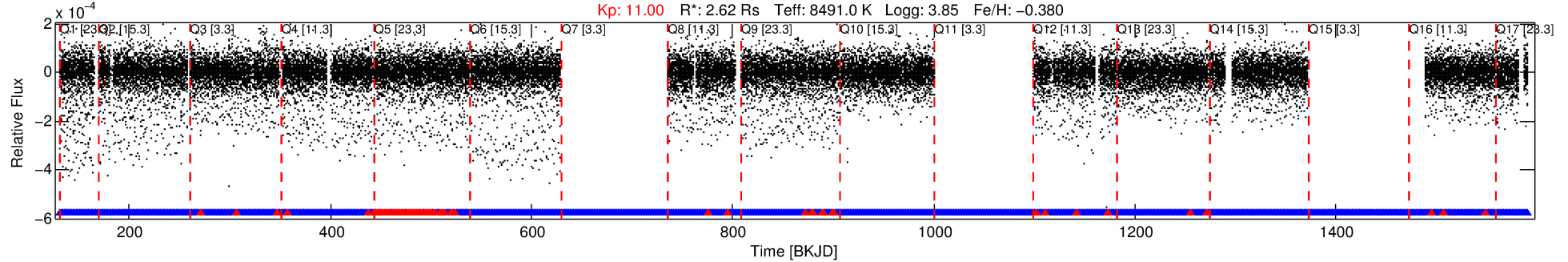
Ephemeris Match Information For 010620329-02

No Significant Match Found

DV One-Page Summary

KIC: 10620329 Candidate: 2 of 3 Period: 0.873 d
KOI: K00066 Corr: No Ephemeris Match

Kp: 11.00 R*: 2.62 Rs Teff: 8491.0 K Logg: 3.85 Fe/H: -0.380



DV Fit Results:

Period = 0.87257 [0.00000] d
Epoch = 131.8690 [0.0001] BKJD
Rp/R* = 0.0156 [0.0005]
a/R* = 4.21 [0.77]
b = 0.90 [0.04]
Seff = 68037.74 [27039.68]
Teq = 4118 [409] K
Rp = 4.47 [1.15] Re
a = 0.0217 [0.0054] AU
Ag = 0.19 [0.08] [-10.46σ]
Teffp = 4205 [113] K [0.20σ]

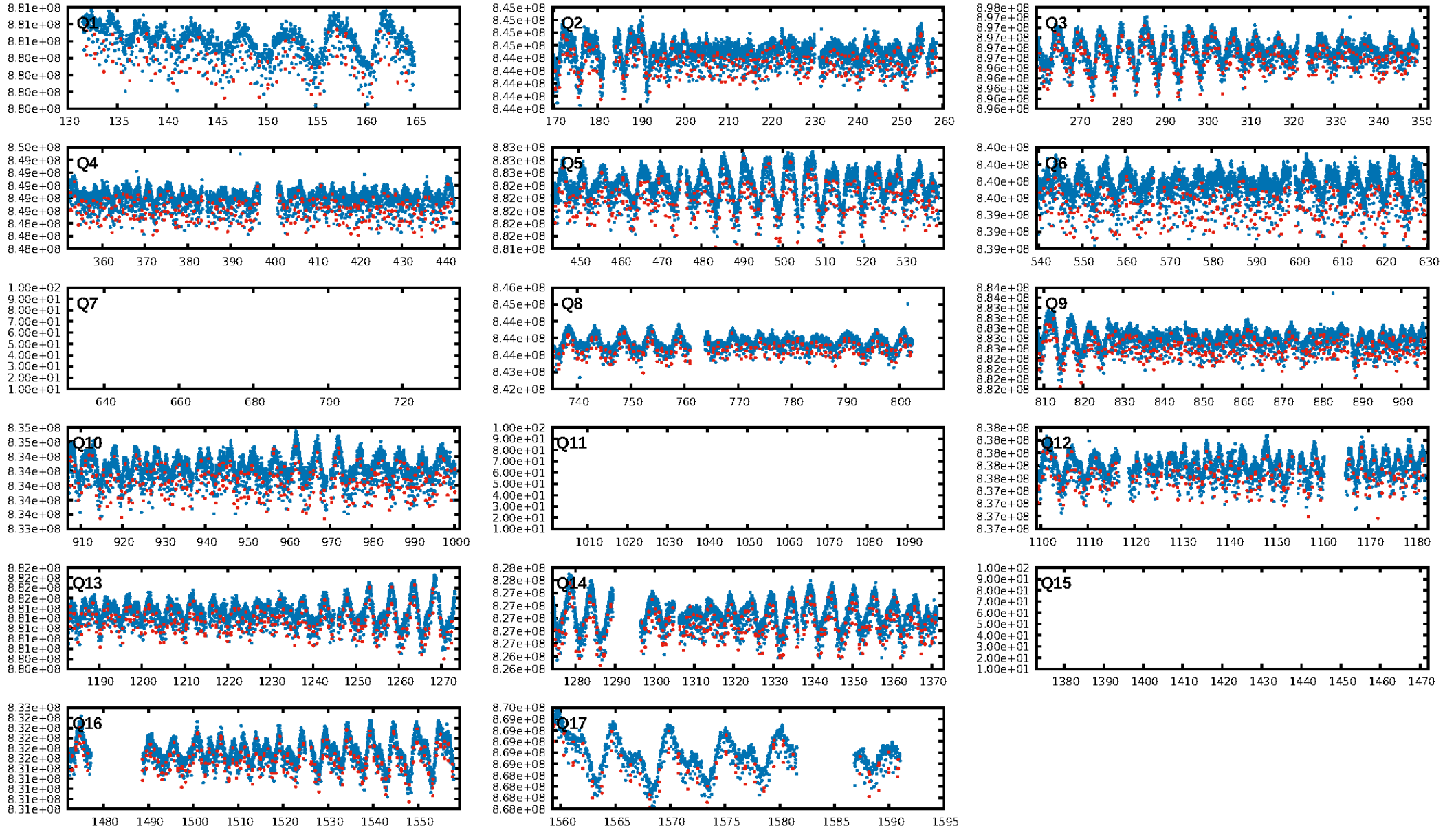
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [1062/1150]
GhostDiagnostic-chr: 7.317
Centroid-sig: N/A
Centroid-so: 0.240 arcsec [2.43σ]
OotOffset-rm: 0.900 arcsec [1.87σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-rm: 0.783 arcsec [1.55σ]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 0.00 [0/14]

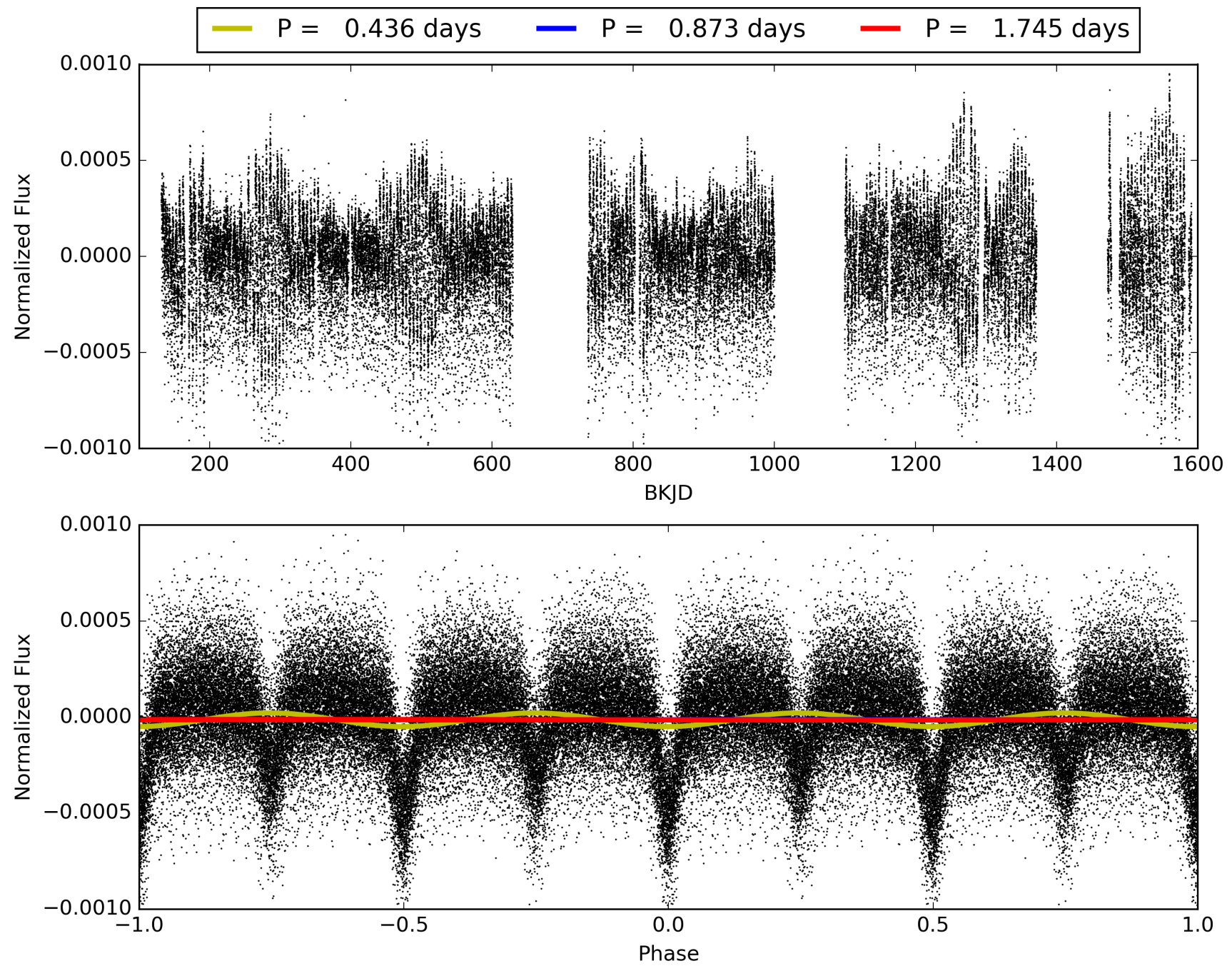
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:03:11 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010620329-02, PDC Light Curves

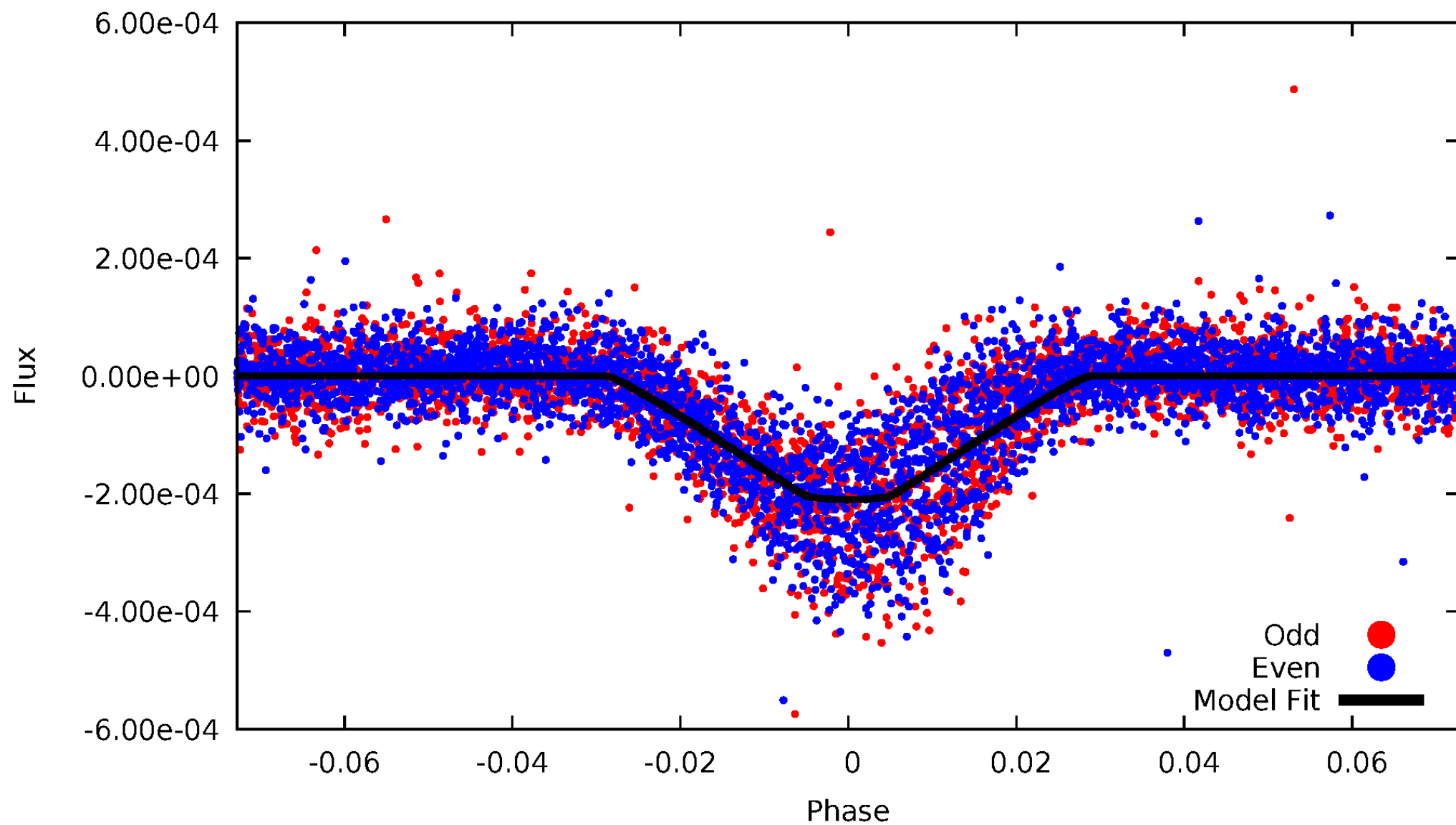


TCE 010620329-02



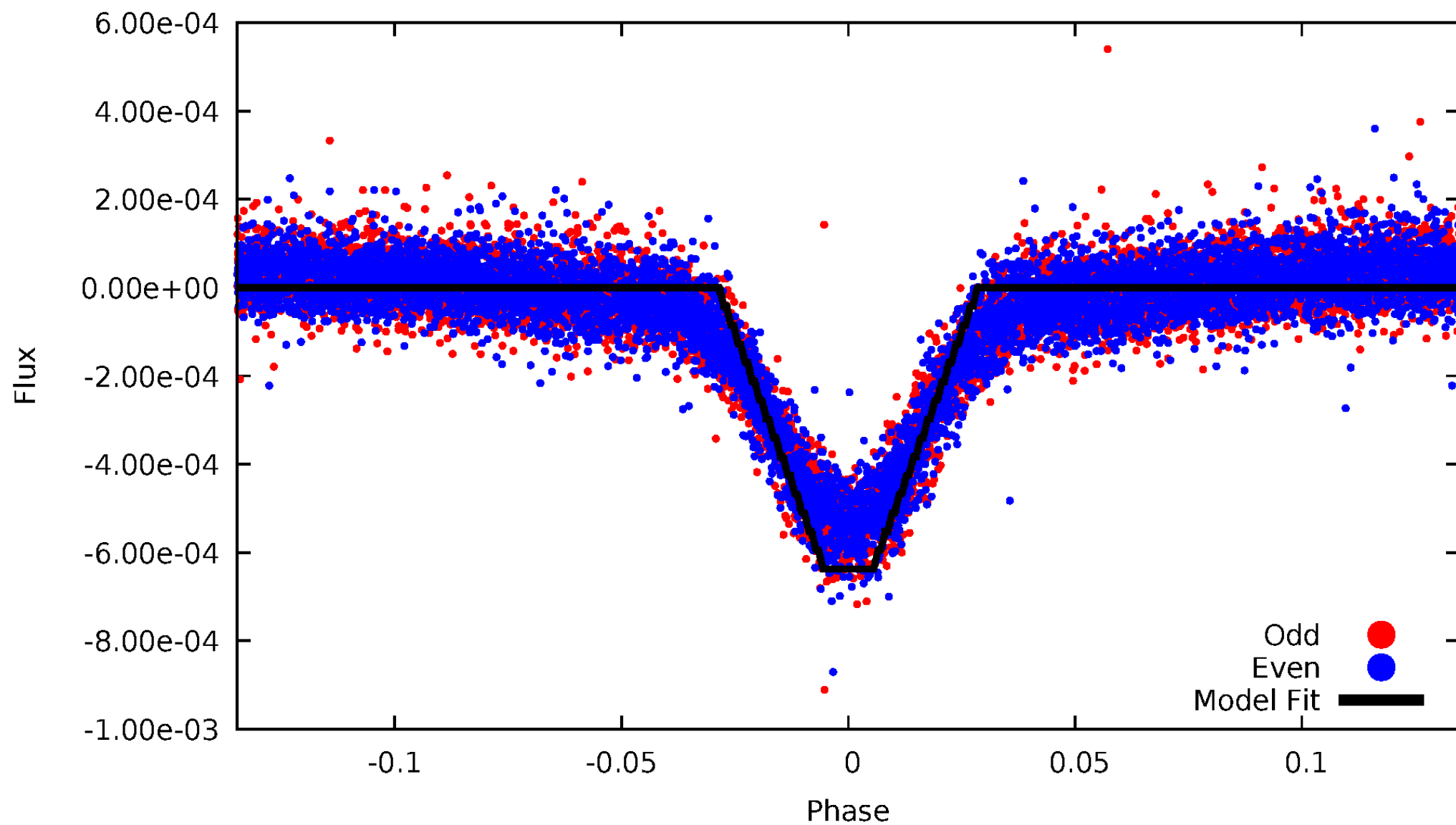
DV Odd/Even

TCE 010620329-02



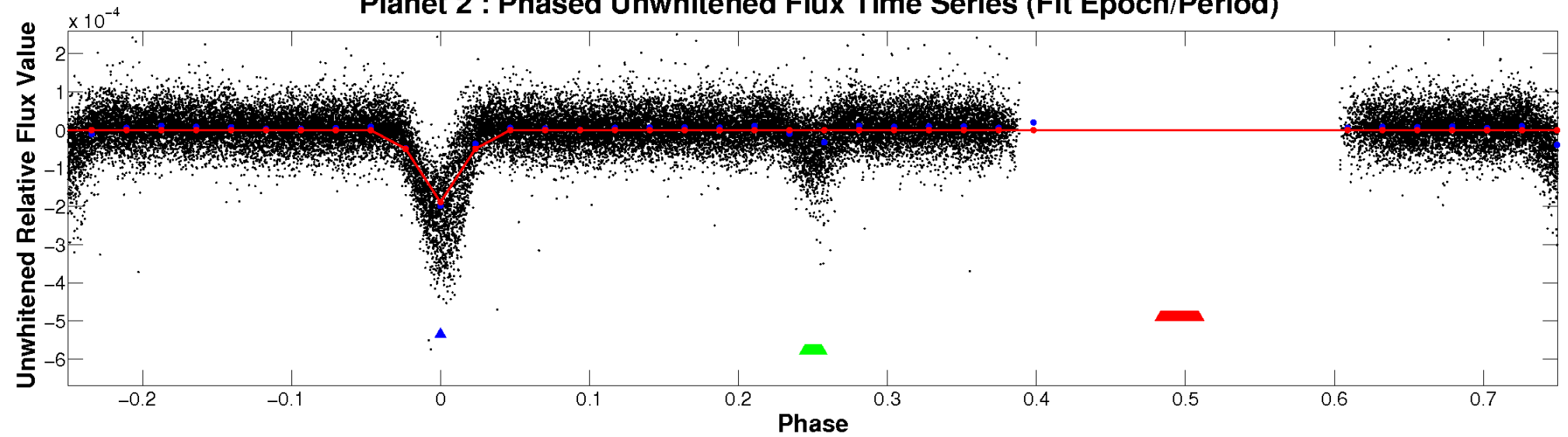
ALT Odd/Even

TCE 010620329-02

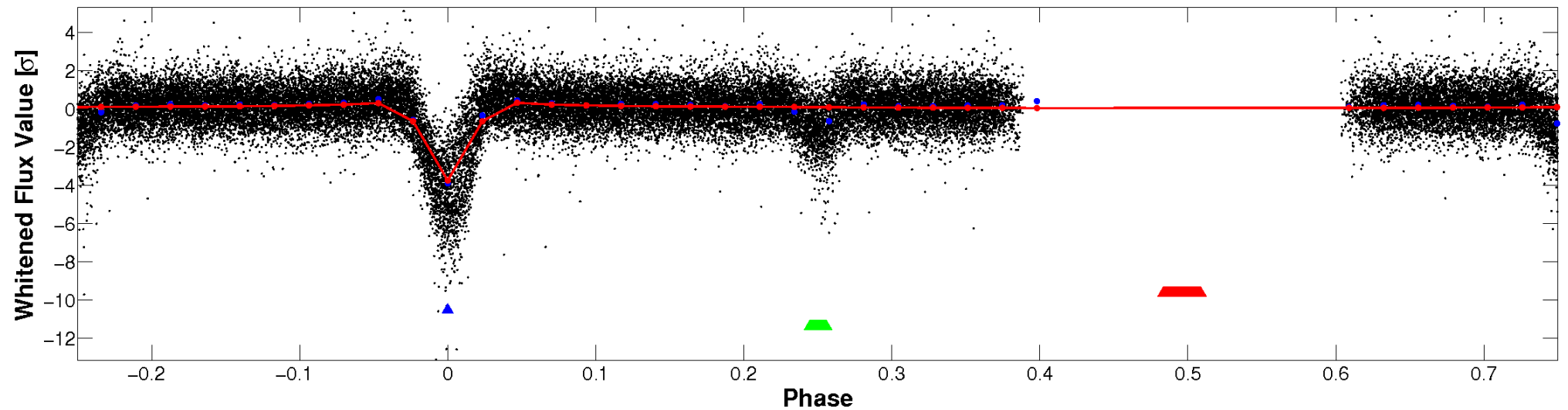


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

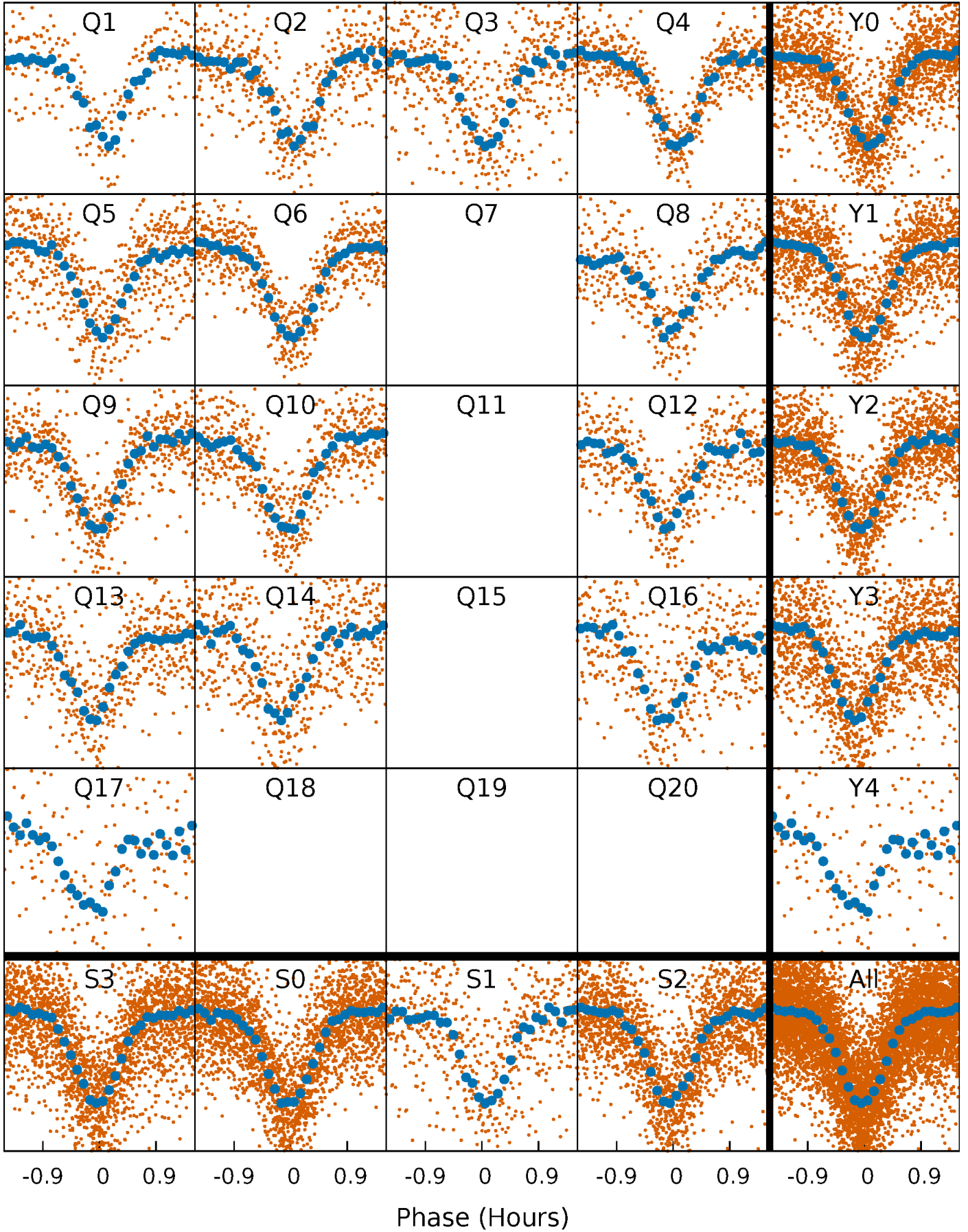


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



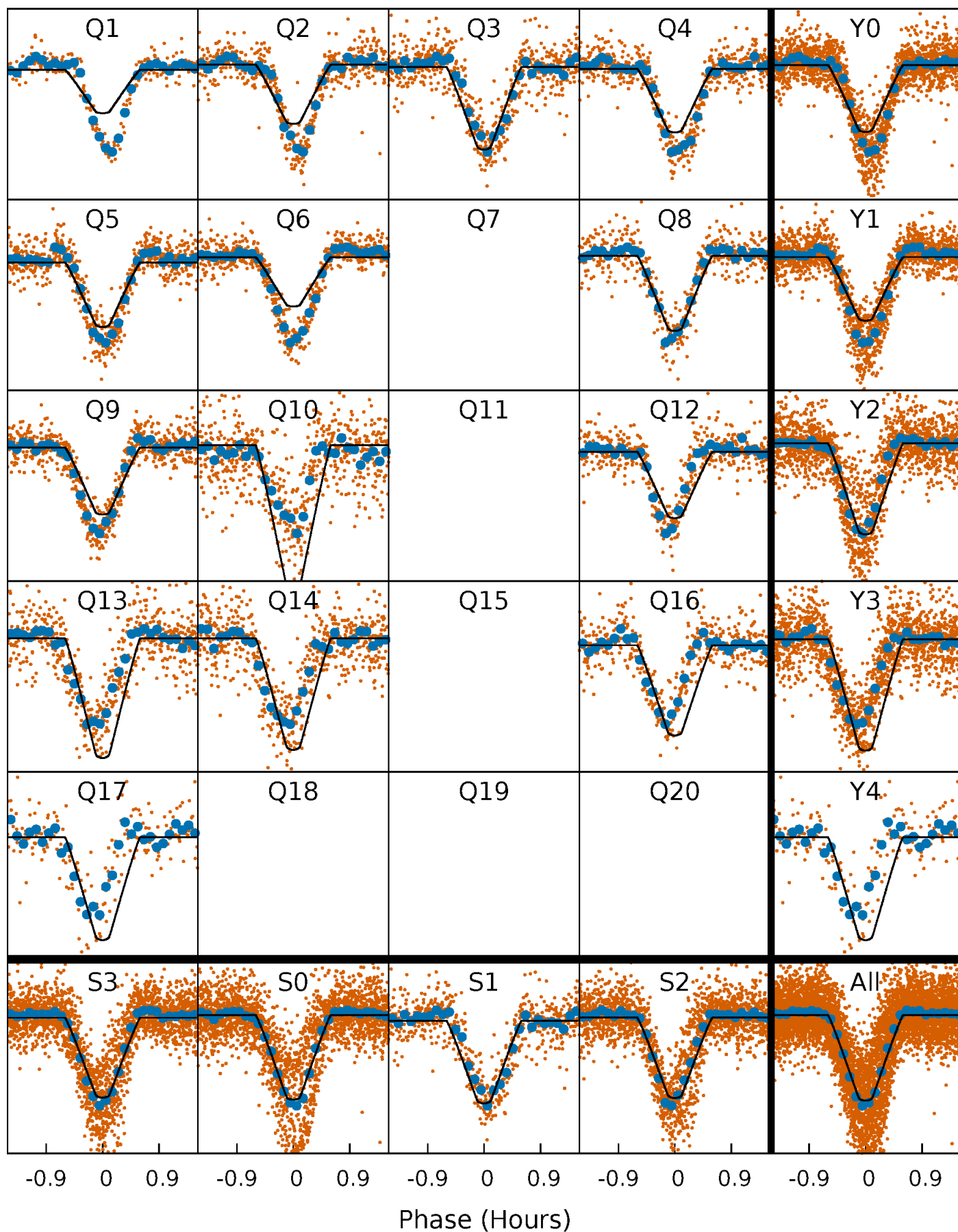
PDC Quarter-Phased Transit Curves

TCE 010620329-02 P= 0.872572 Days $T_0=131.868977$ (BKJD)



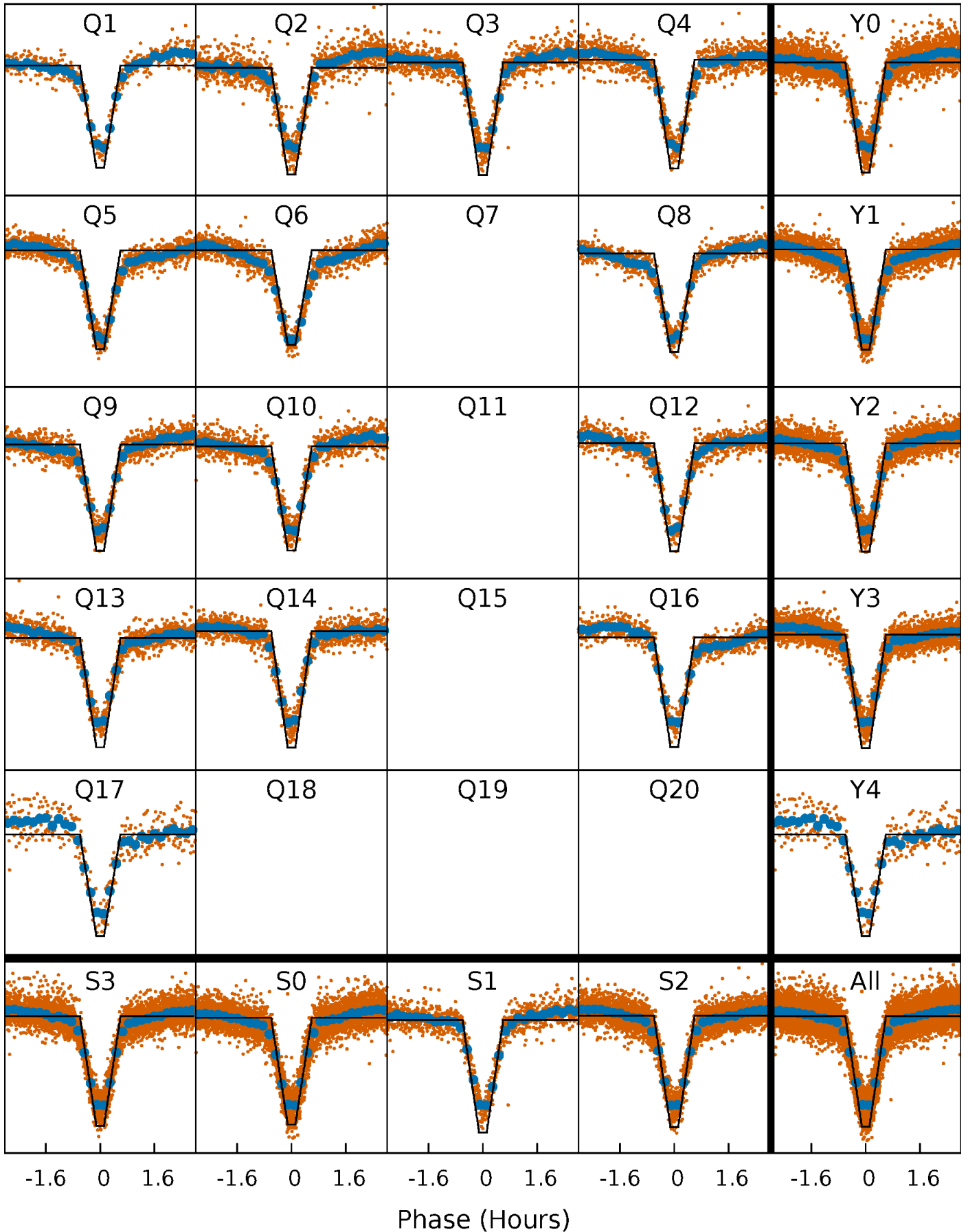
DV Quarter-Phased Transit Curves

TCE 010620329-02 P= 0.872572 Days $T_0=131.868977$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

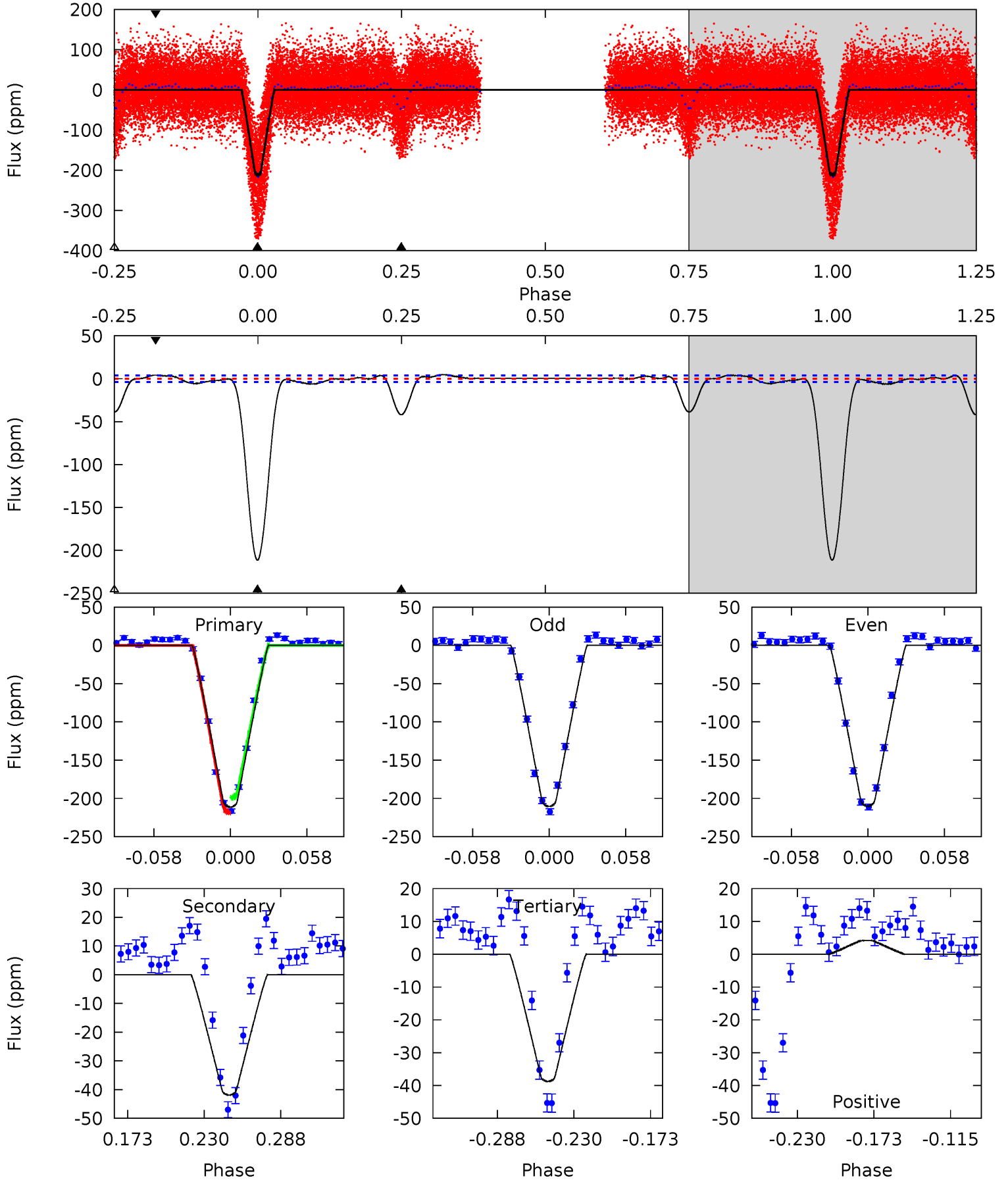
TCE 010620329-02 $P = 0.872566$ Days $T_0 = 131.872203$ (BKJD)



DV Model-Shift Uniqueness Test

010620329-02, P = 0.872572 Days, E = 130.996405 Days

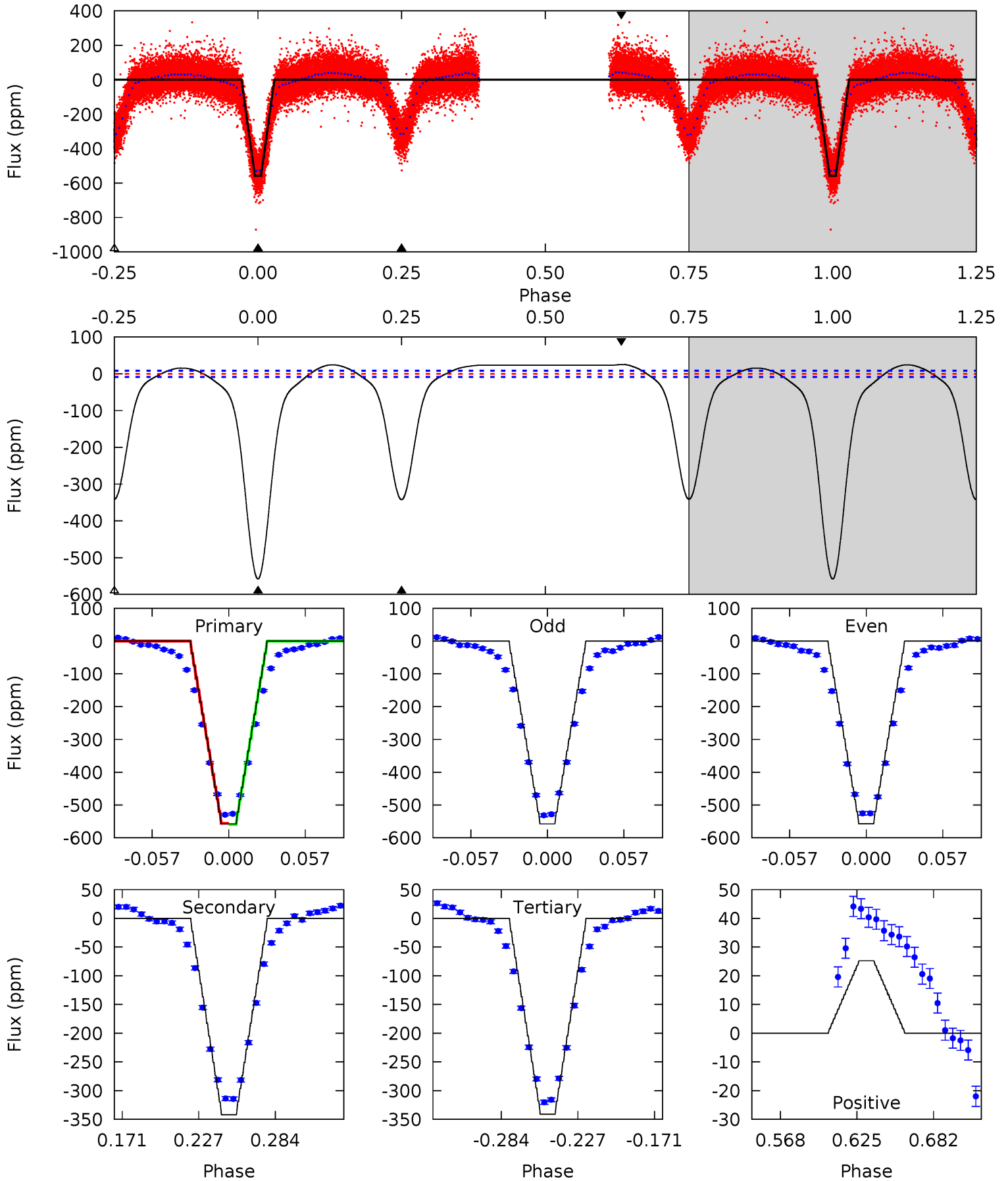
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
264.0	52.3	48.4	5.23	4.68	1.90	10.2	215.6	258.8	3.97	47.1	0.28	1.02	0.02	11.3



Alt Model-Shift Uniqueness Test

010620329-02, P = 0.872566 Days, E = 130.999637 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
312.3	191.6	191.0	14.1	4.68	1.90	48.4	121.3	298.2	0.63	177.5	0.12	1.01	0.04	0.75



Stellar Parameters For KIC 010620329

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8491^{+67}_{-93}	$3.853^{+0.232}_{-0.058}$	$-0.380^{+0.050}_{-0.150}$	$2.622^{+0.288}_{-0.672}$	$1.791^{+0.045}_{-0.153}$	$0.140^{+0.172}_{-0.033}$
	+1%/-1%	+6%/-2%	+13%/-39%	+11%/-26%	+3%/-9%	+123%/-23%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010620329-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-42 ± 1	$4.33^{+0.36}_{-0.57}$	5672^{+210}_{-371}	4555^{+236}_{-212}	$0.574^{+0.184}_{-0.085}$
Alt.	-342 ± 2	$6.98^{+0.55}_{-0.90}$	5666^{+207}_{-355}	6709^{+118}_{-117}	$1.795^{+0.545}_{-0.235}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

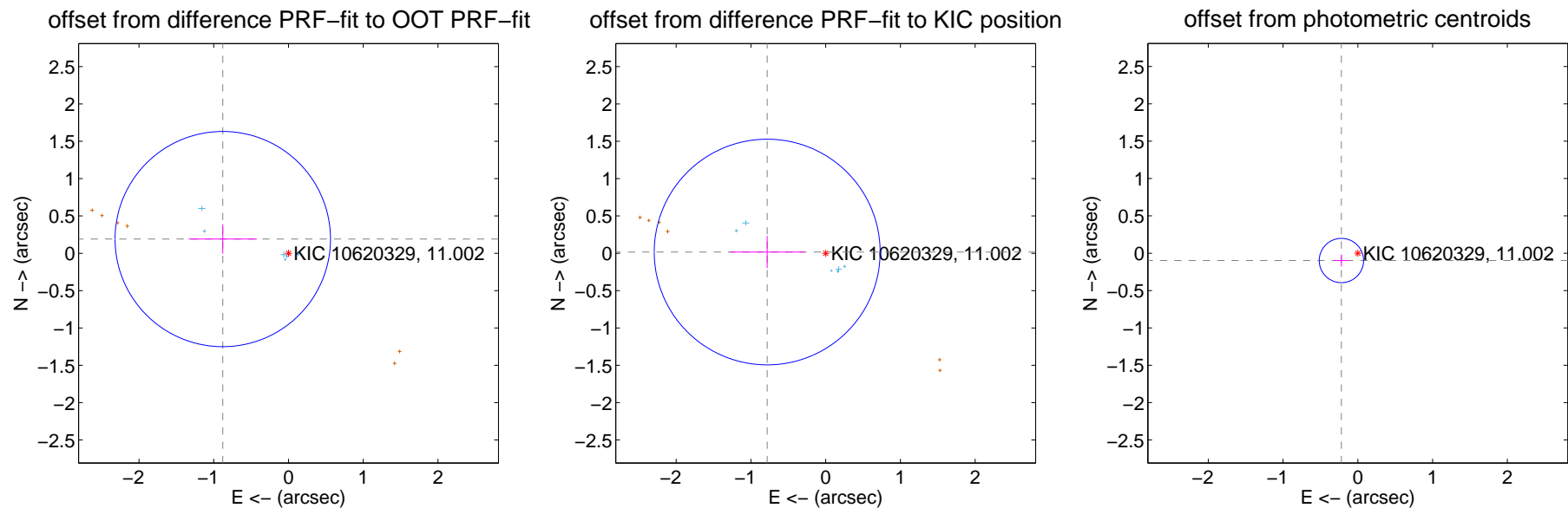
DV Centroid Data

Supplemental centroid analysis for 010620329-02. **Kepler magnitude: 11.00.** Transit SNR 130.03

There are 8 quarters with good PRF difference image offsets

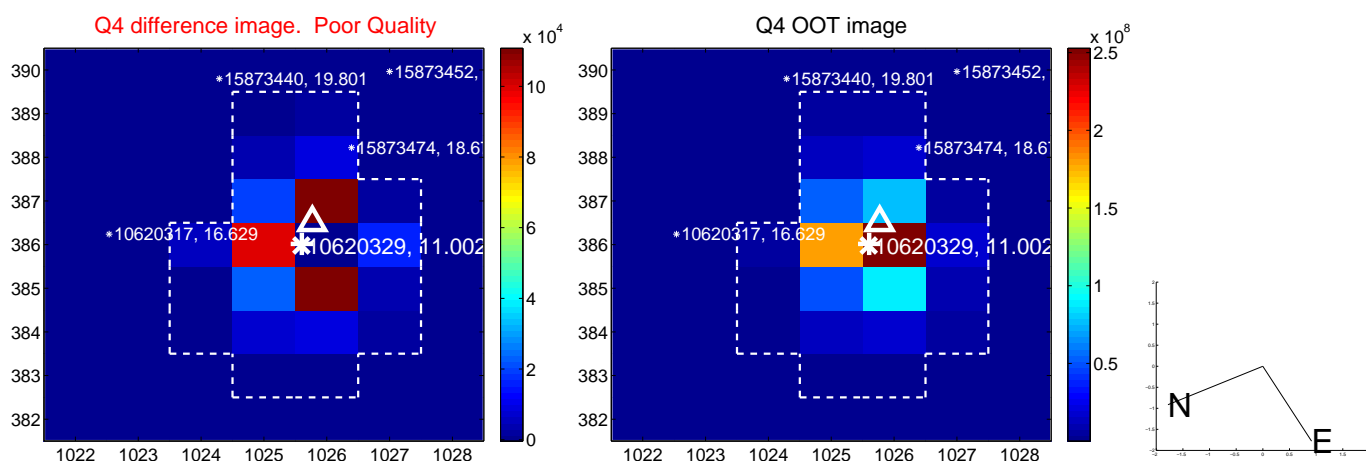
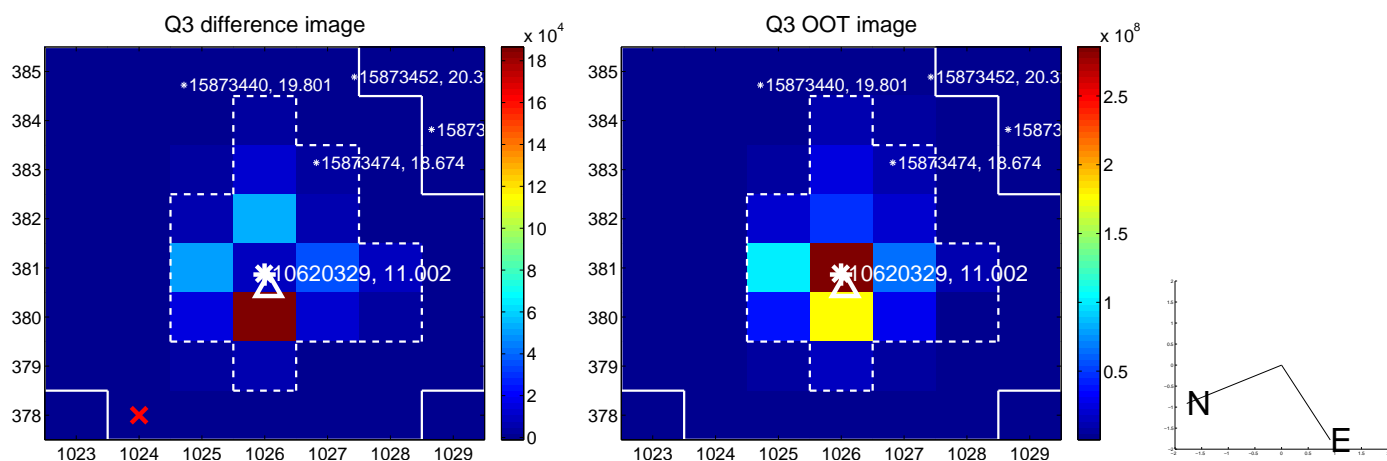
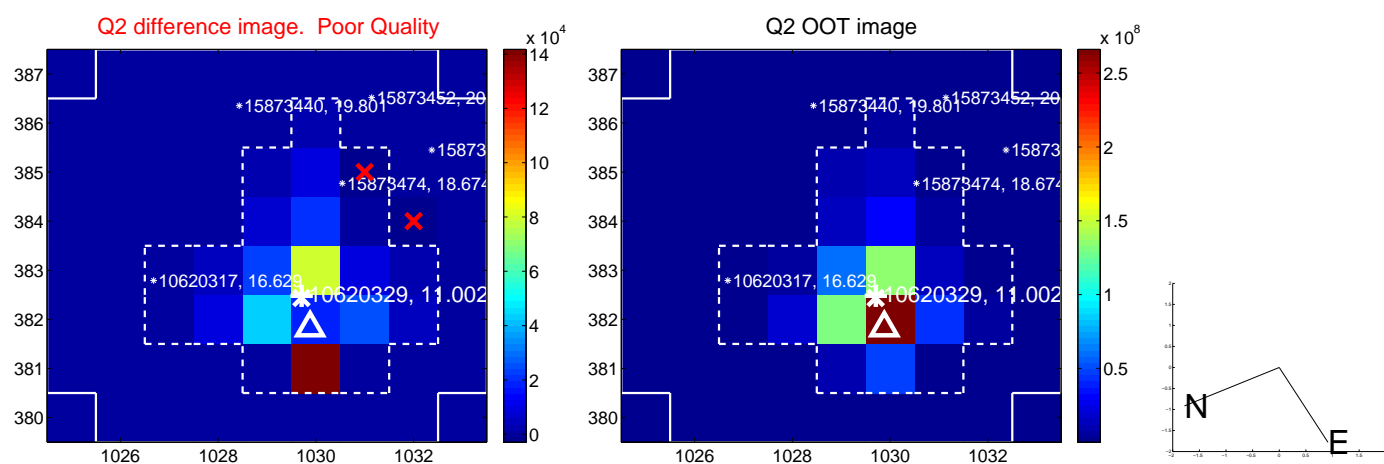
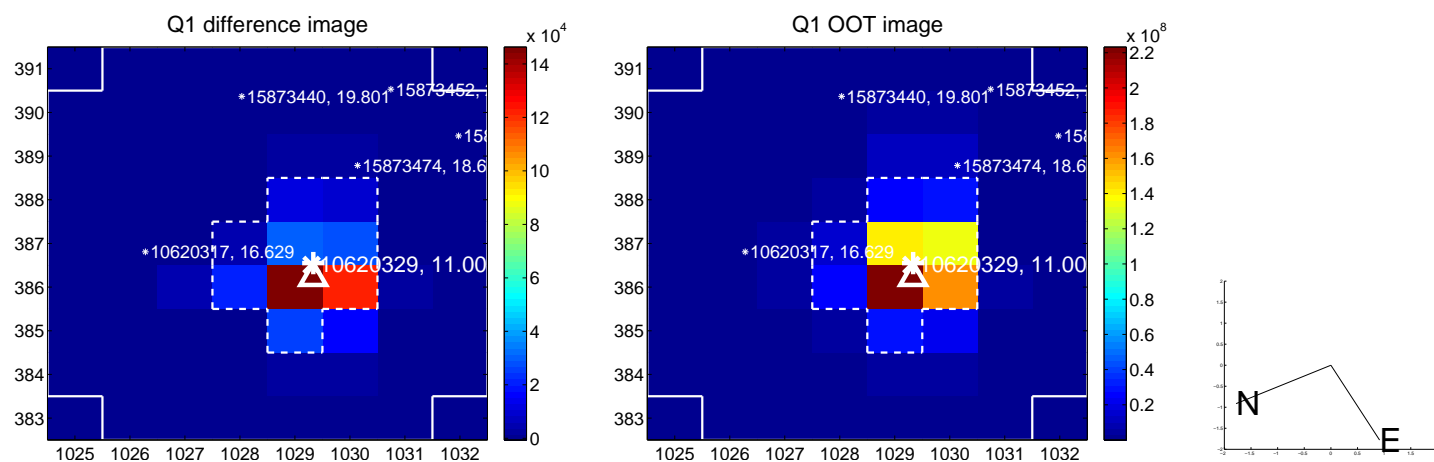
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.900 ± 0.480	1.87	0.879 ± 0.456	0.190 ± 0.196
PRF-fit source offset from KIC position	0.783 ± 0.504	1.55	0.782 ± 0.500	0.017 ± 0.216
photometric centroid source offset	0.24 ± 0.10	2.43	0.22 ± 0.10	-0.10 ± 0.08

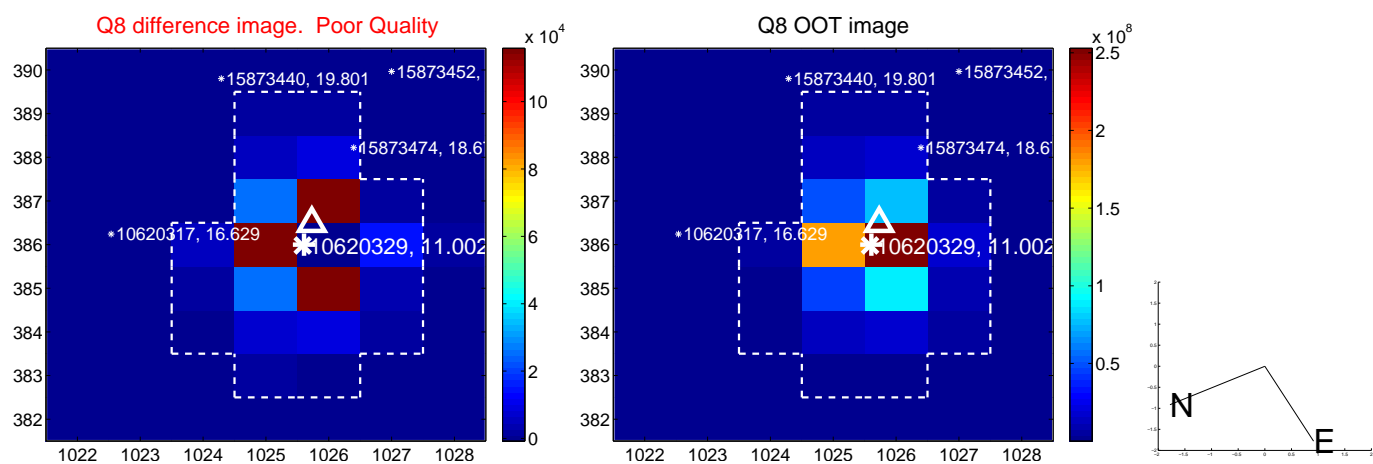
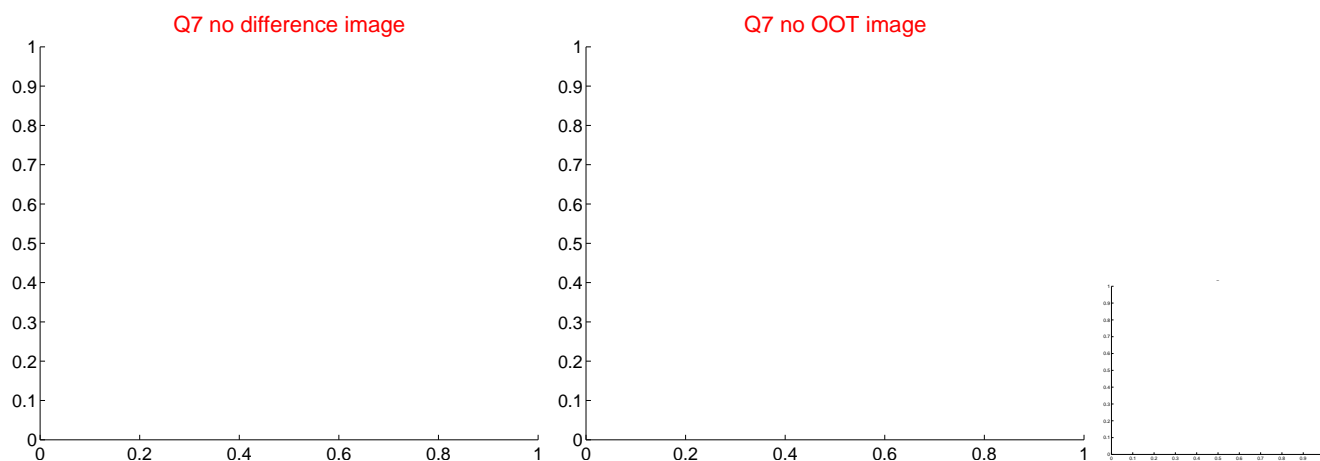
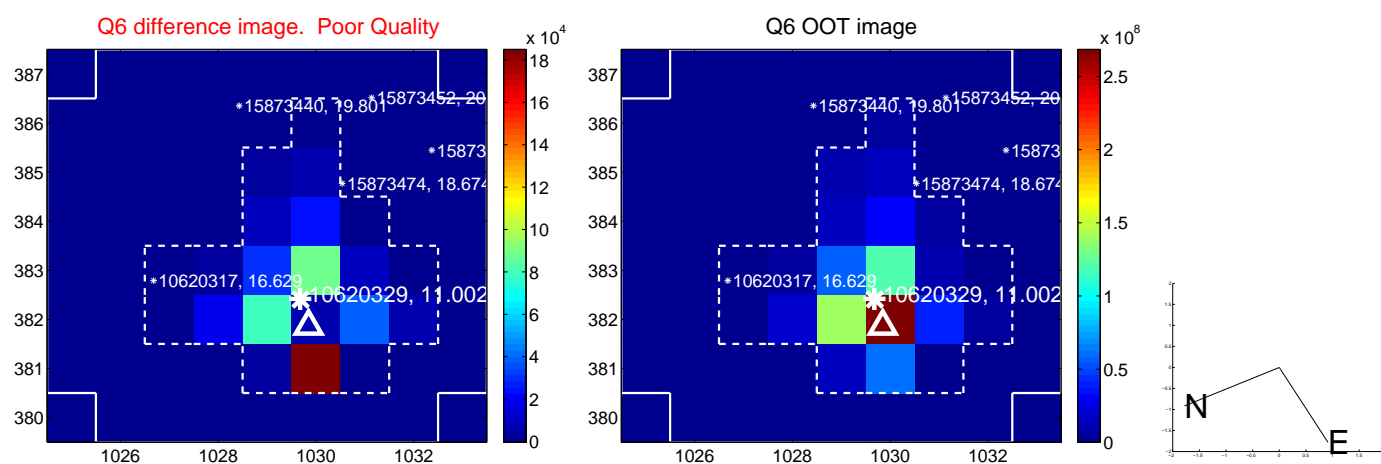
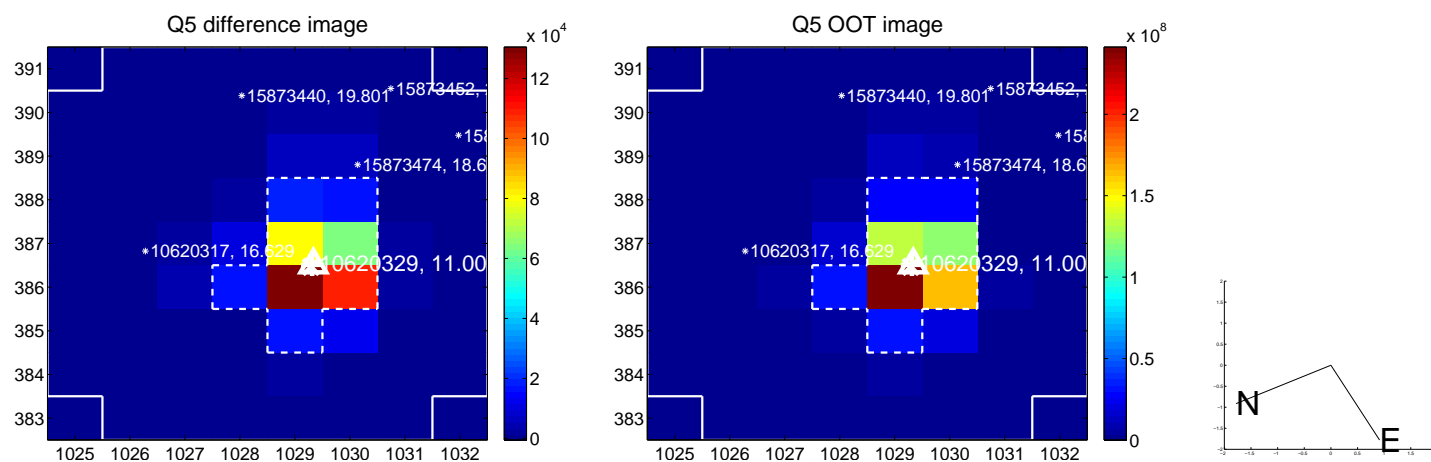


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

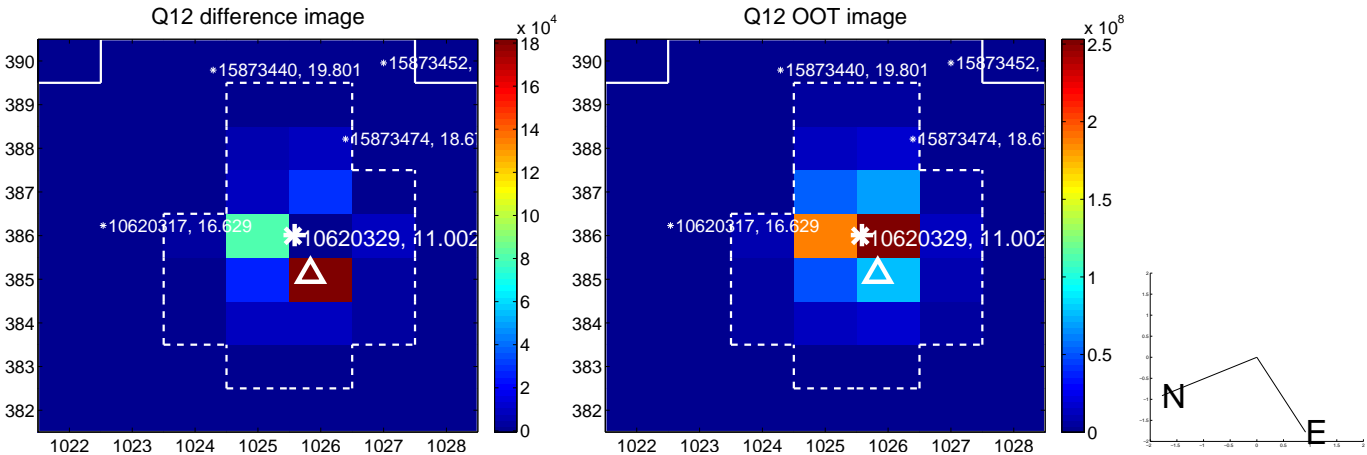
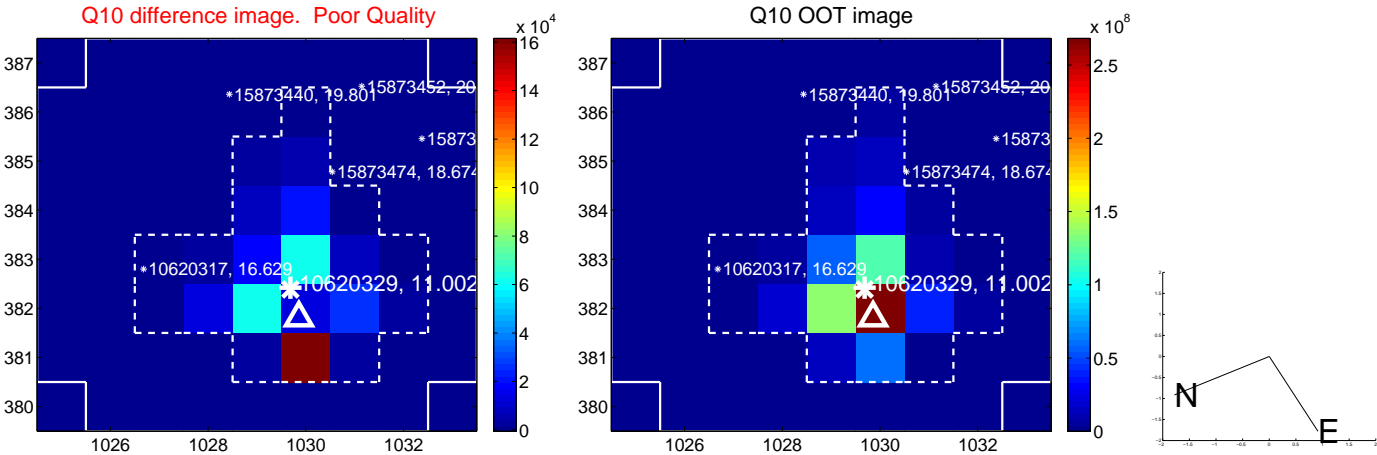
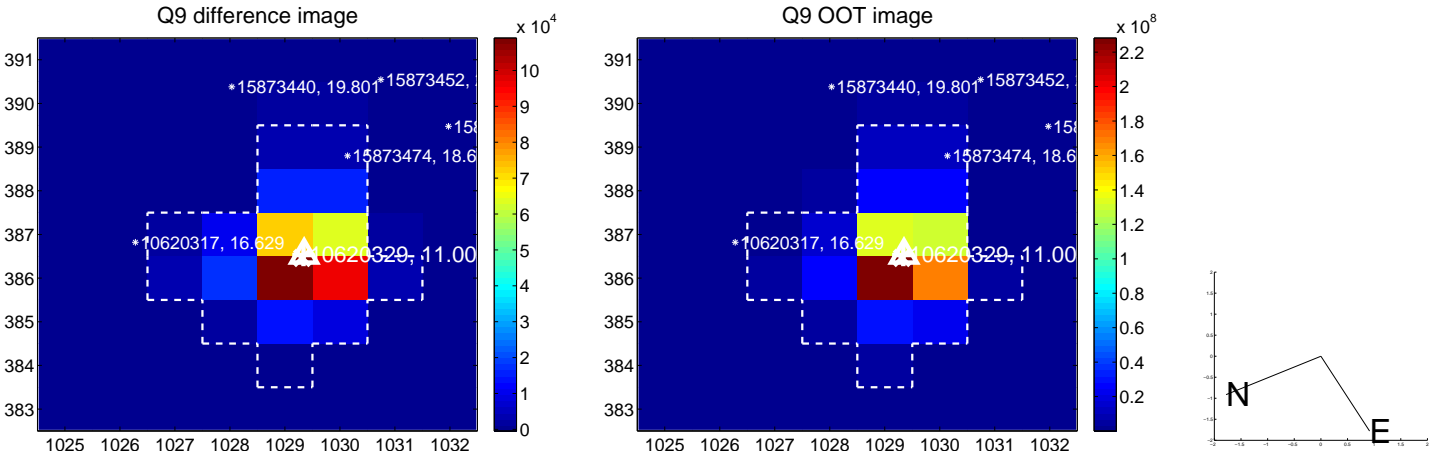
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



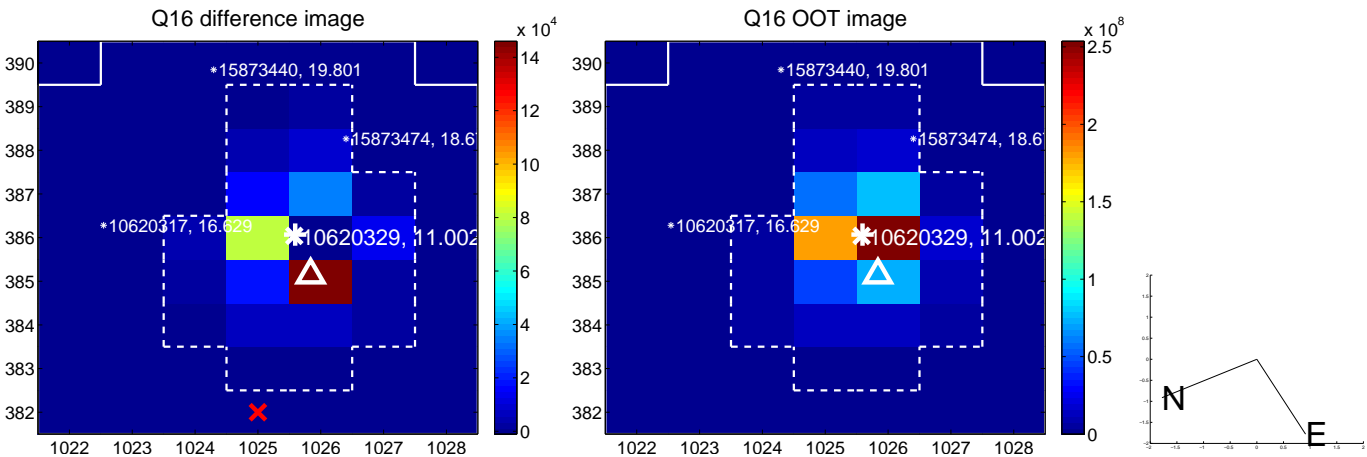
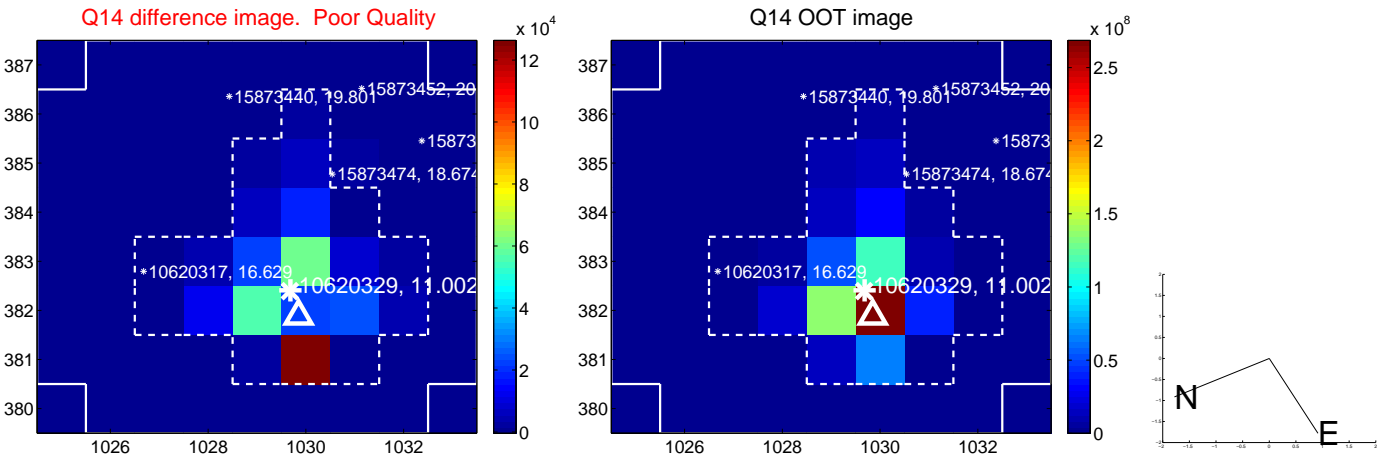
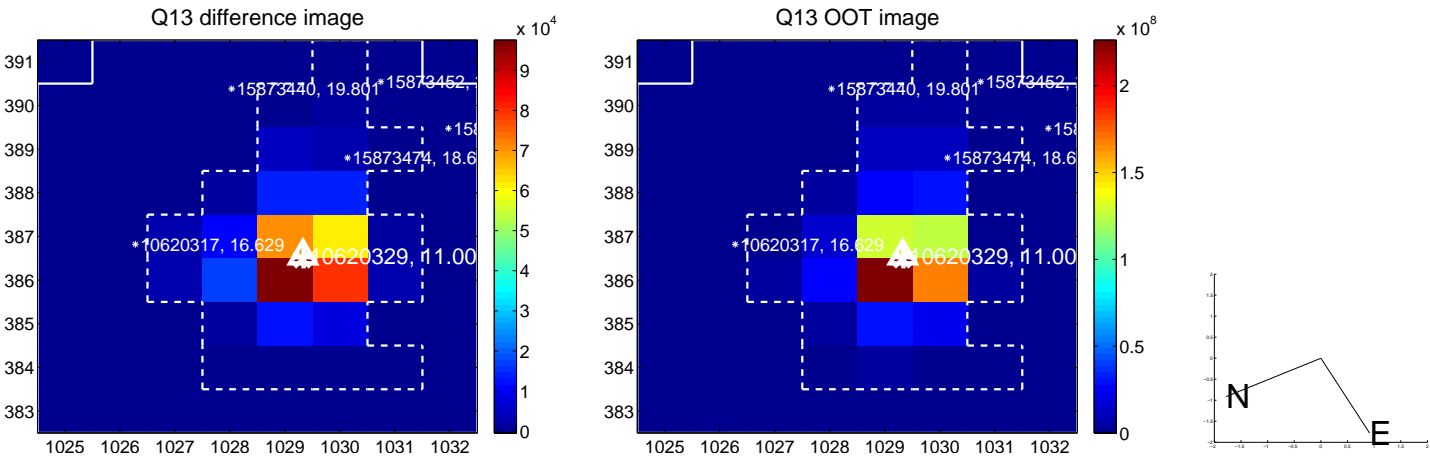
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



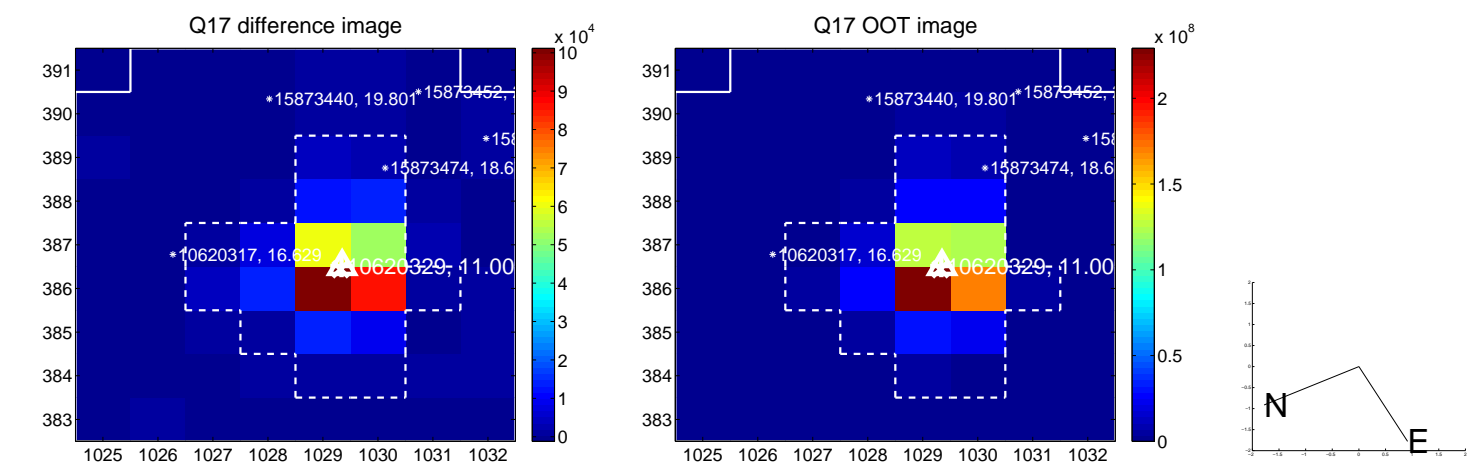
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



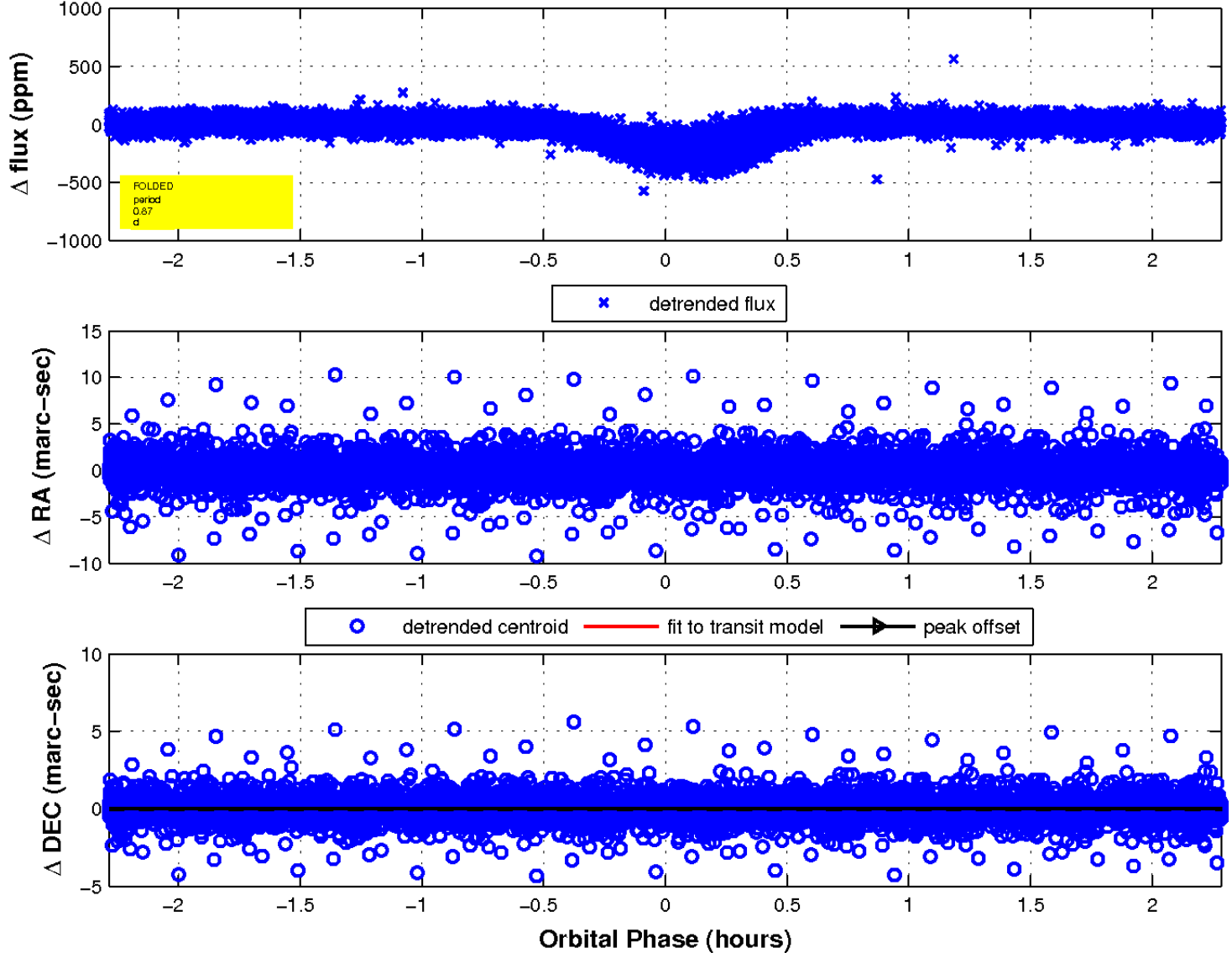
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

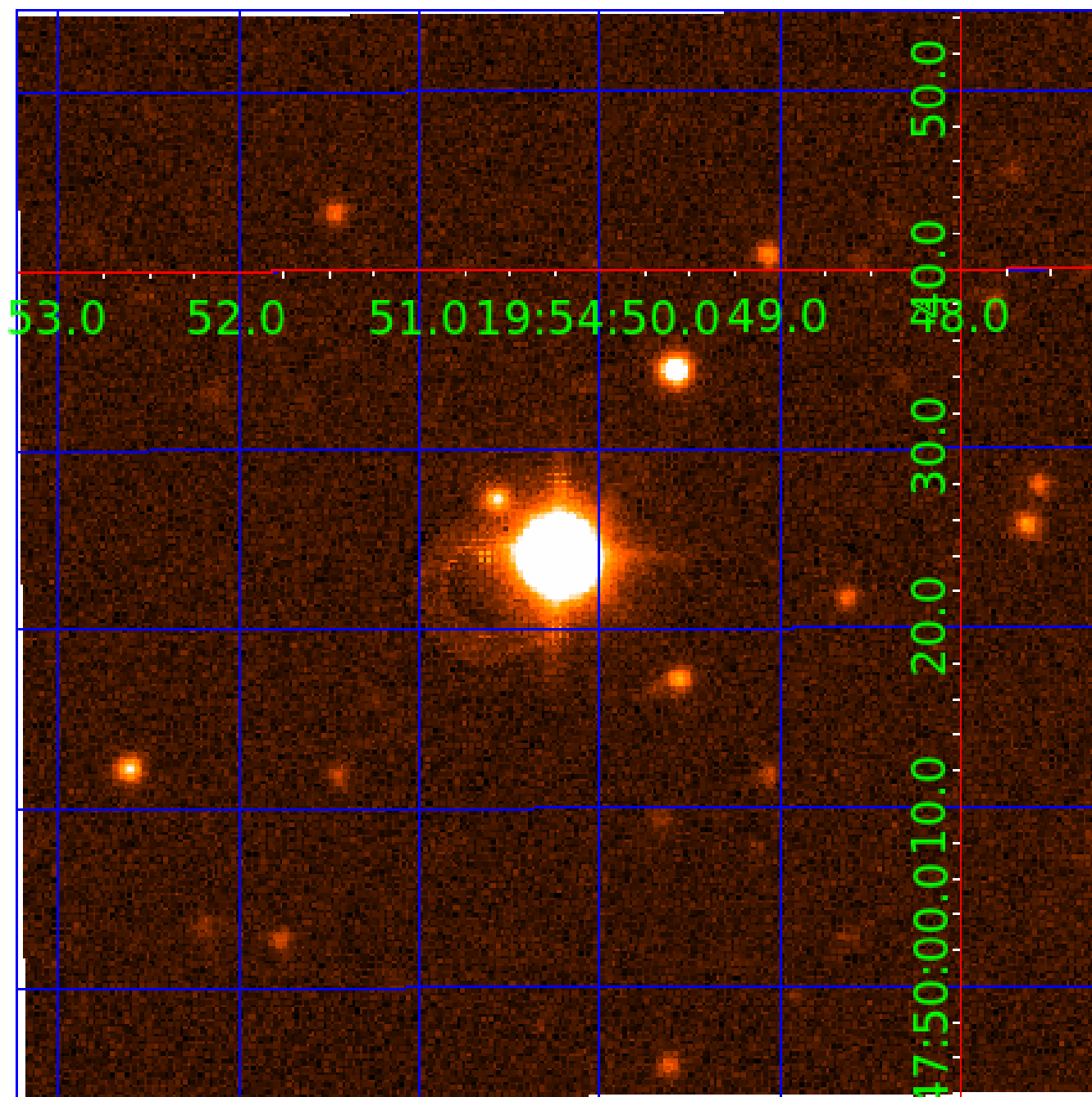


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 010620329

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010620329-01	OBS	0066.01	0.872559	132.312842	204.5	0.756	55.6	118.1	2.62	8491	4.41	68039.11
010620329-02	OBS	No	0.872572	131.868977	209.9	0.762	109.2	130.0	2.62	8491	4.47	68037.74
010620329-03	OBS	No	0.872566	132.092244	106.6	1.500	18.5	-1.0	2.62	8491	2.75	68038.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010620329-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—CENT_SATURATED
010620329-02	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010620329-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010620329-03

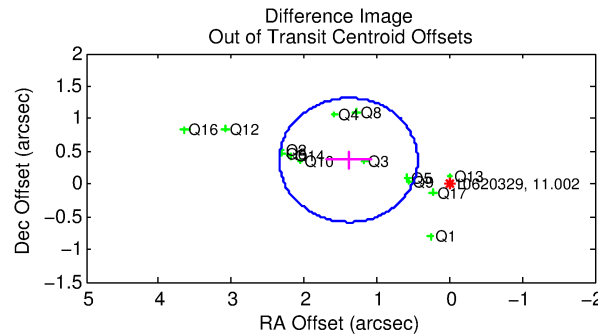
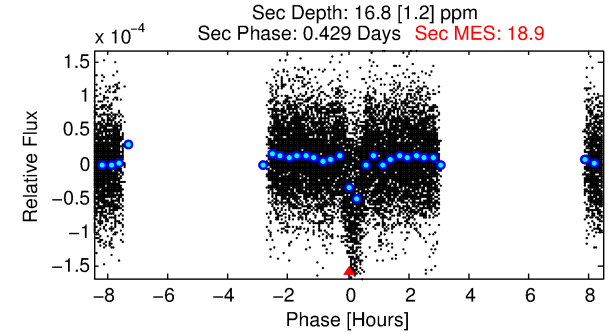
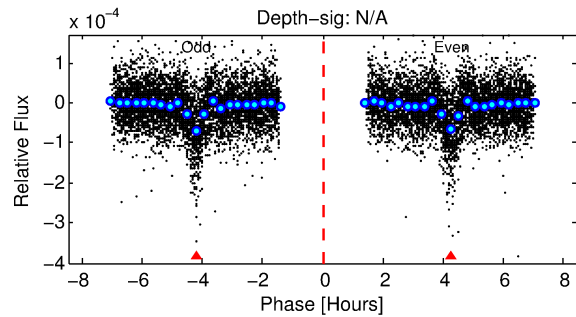
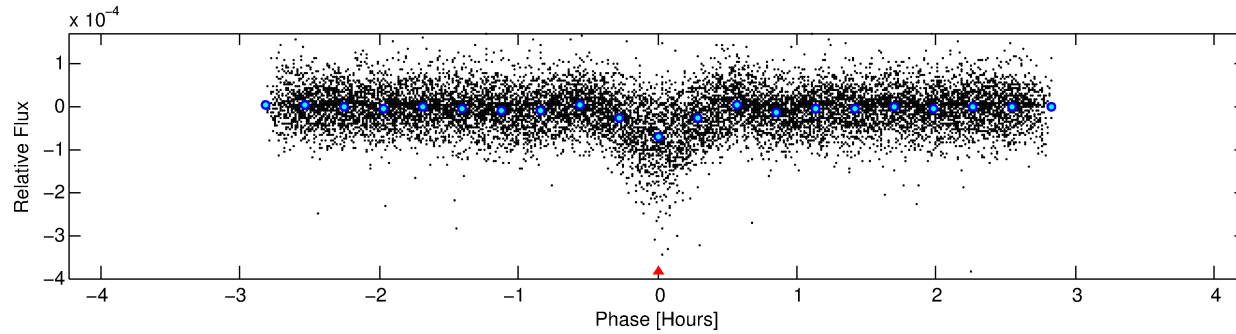
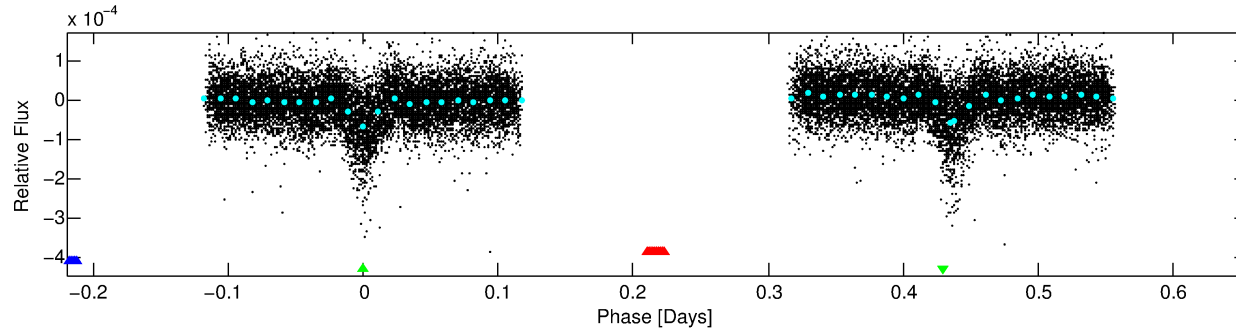
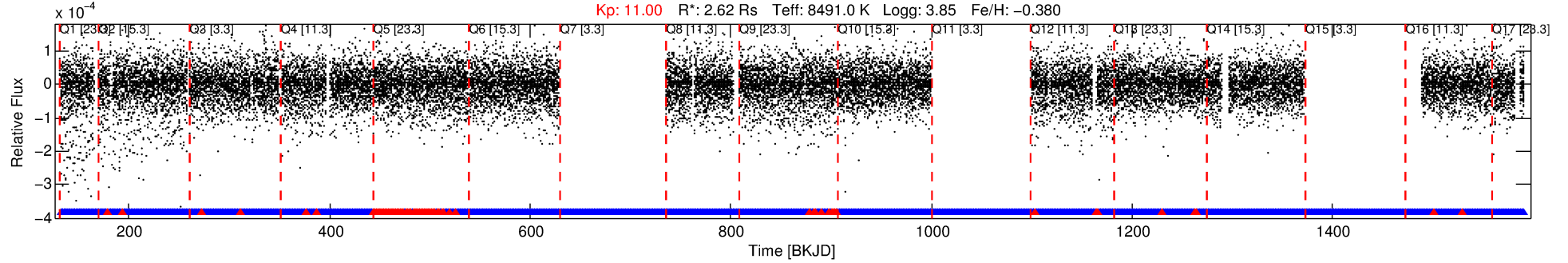
No Significant Match Found

DV One-Page Summary

KIC: 10620329 Candidate: 3 of 3 Period: 0.873 d

KOI: K00066 Corr: No Ephemeris Match

Kp: 11.00 R*: 2.62 Rs Teff: 8491.0 K Logg: 3.85 Fe/H: -0.380



TPS TCE Results:

Period = 0.87257 d

Epoch = 132.0922 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]

LongPeriod-sig: 0.0% [0.00σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 0.92 [1067/1155]

GhostDiagnostic-chr: 3.823

Centroid-sig: N/A

Centroid-so: 0.214 arcsec [5.06σ]

OotOffset-rm: 1.438 arcsec [4.53σ]

KicOffset-rm: 1.326 arcsec [4.32σ]

OotOffset-st: 4/1/4/5 [14]

KicOffset-st: 4/1/4/5 [14]

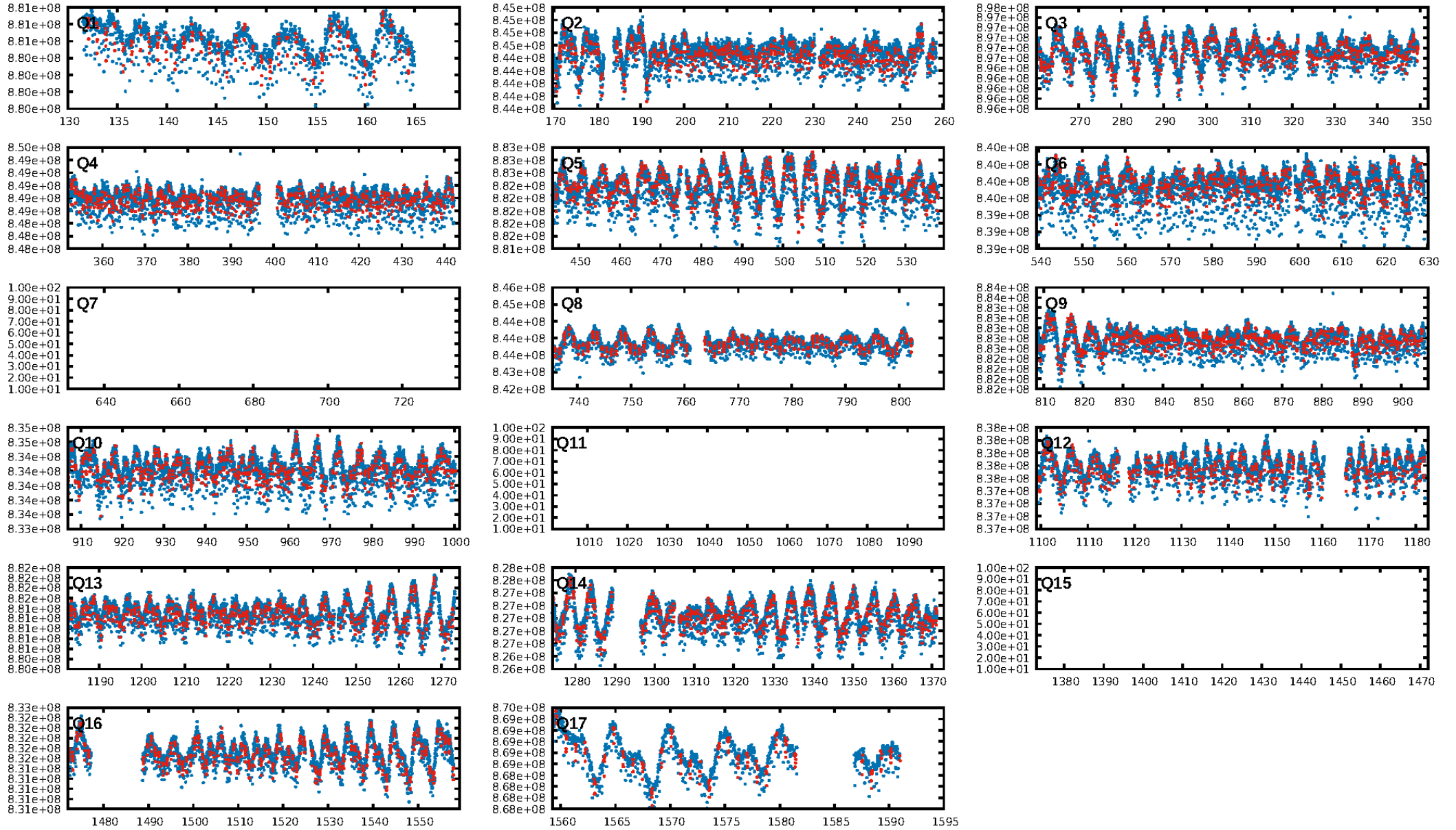
DiffImageQuality-fgm: 0.57 [8/14]

DiffImageOverlap-fno: 0.00 [0/14]

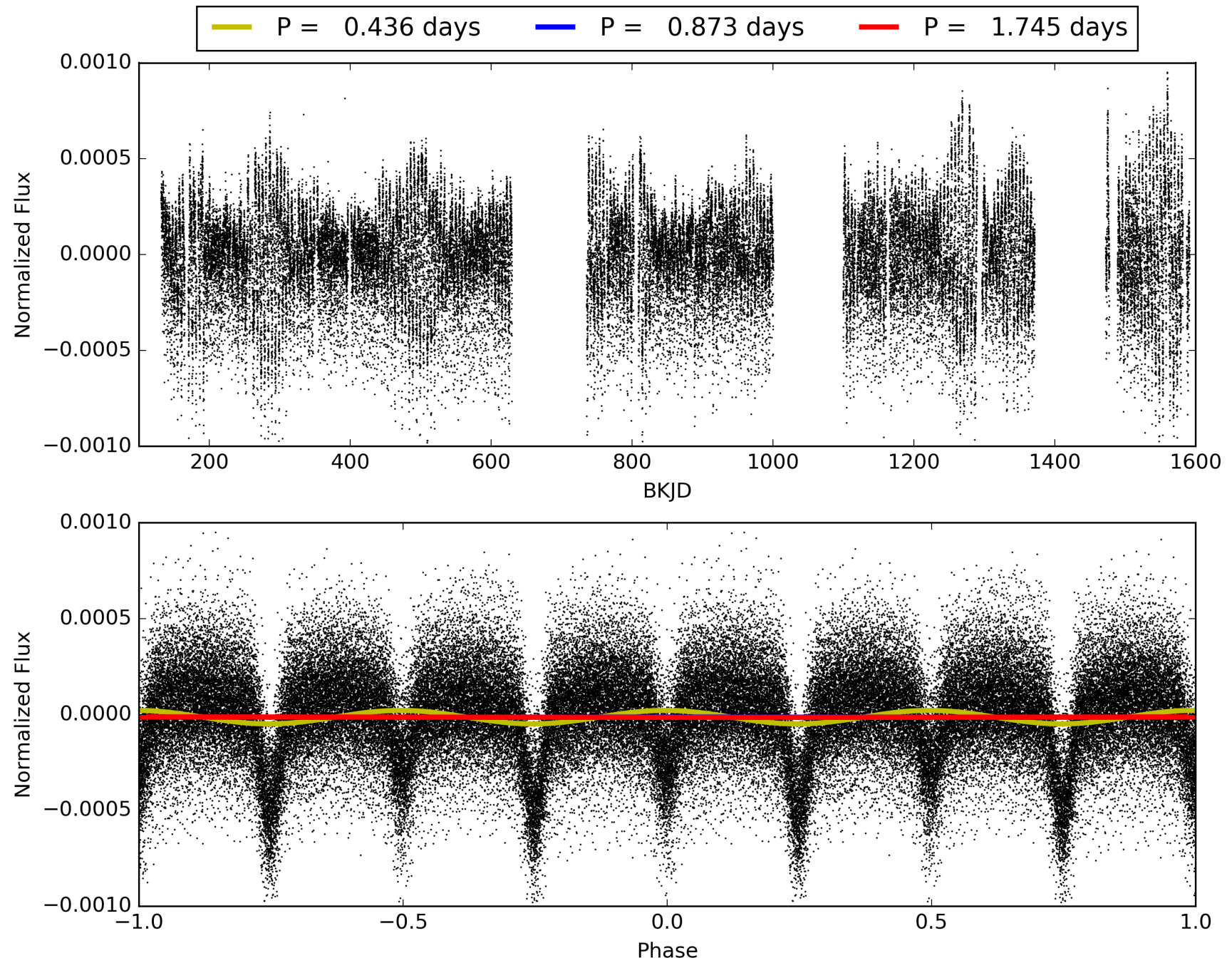
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:03:17 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010620329-03, PDC Light Curves

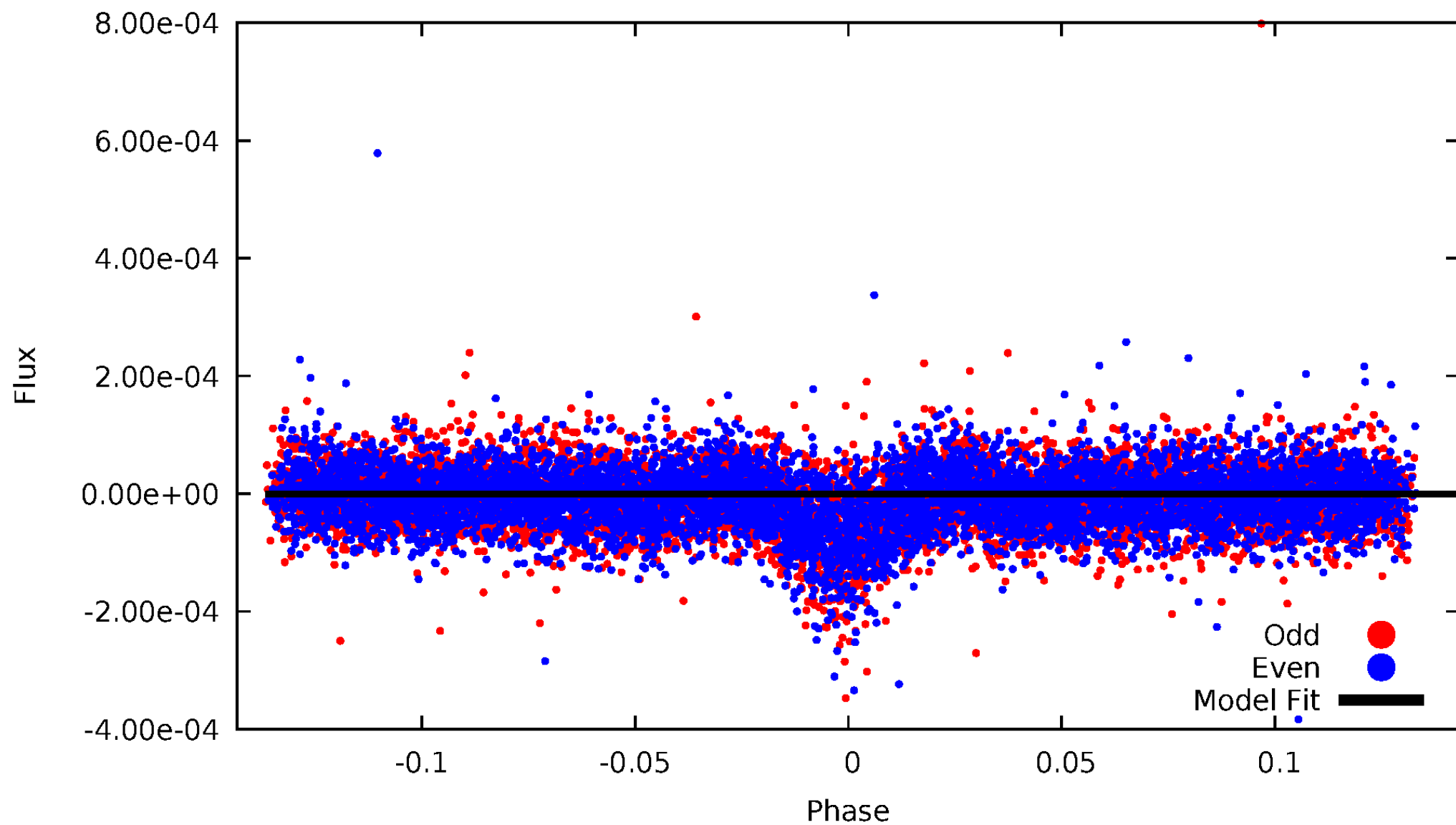


TCE 010620329-03



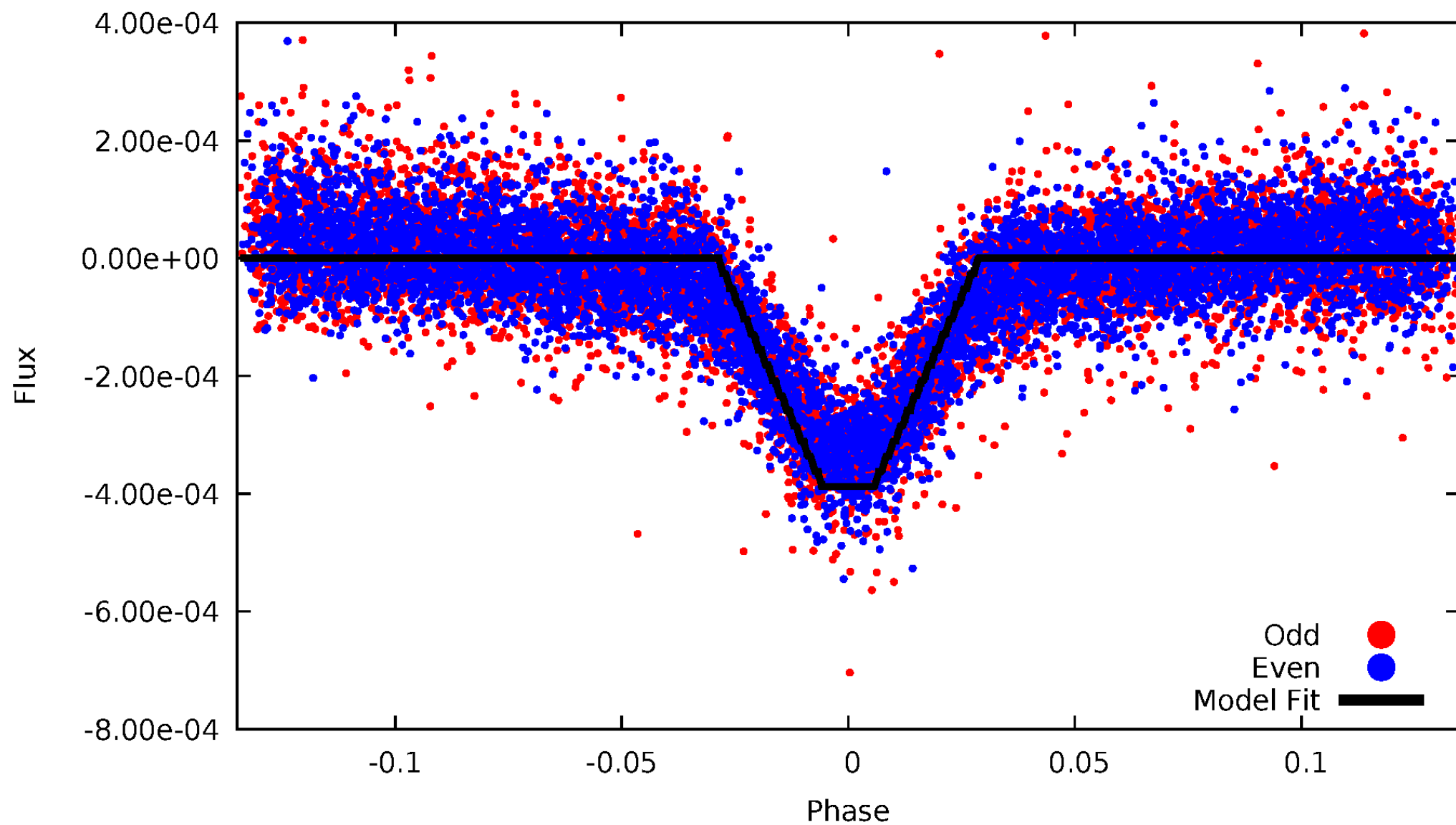
DV Odd/Even

TCE 010620329-03

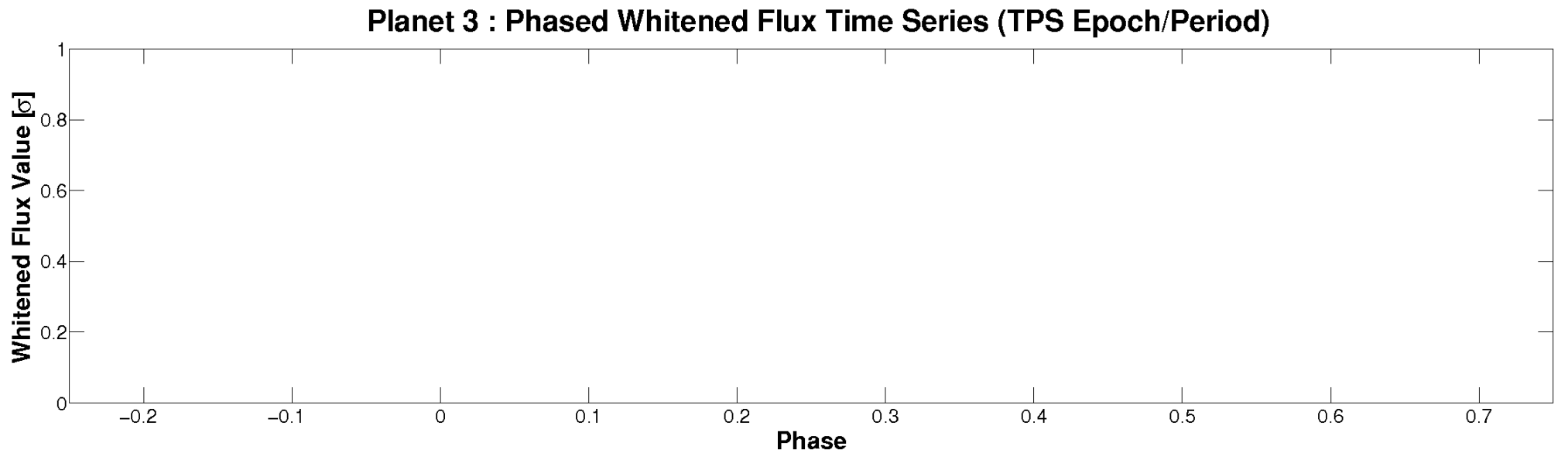
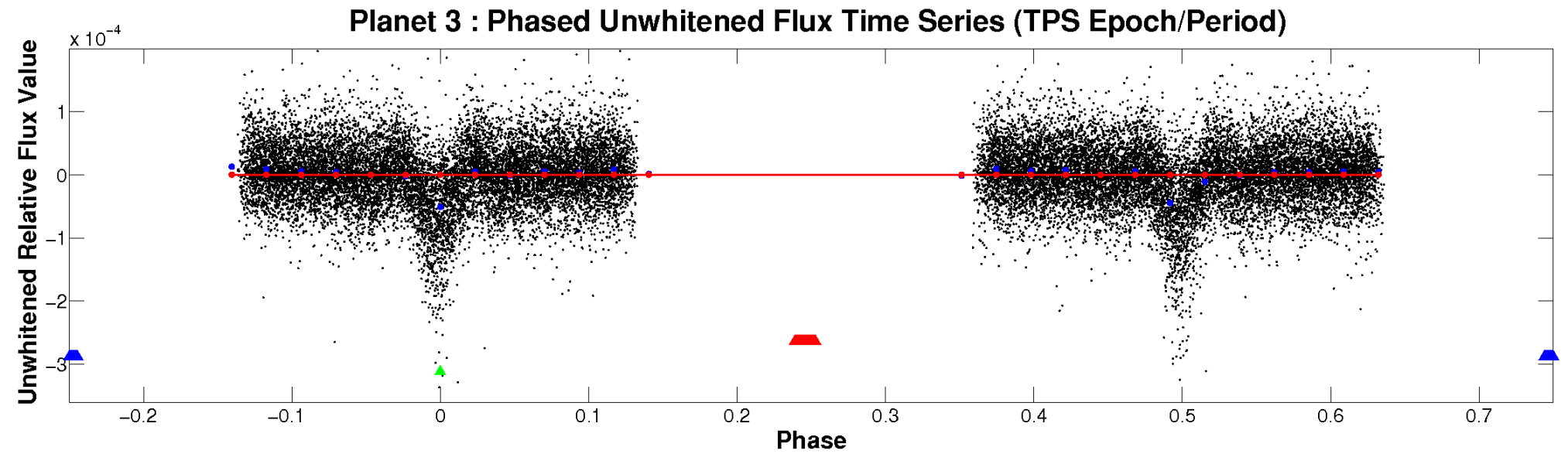


ALT Odd/Even

TCE 010620329-03

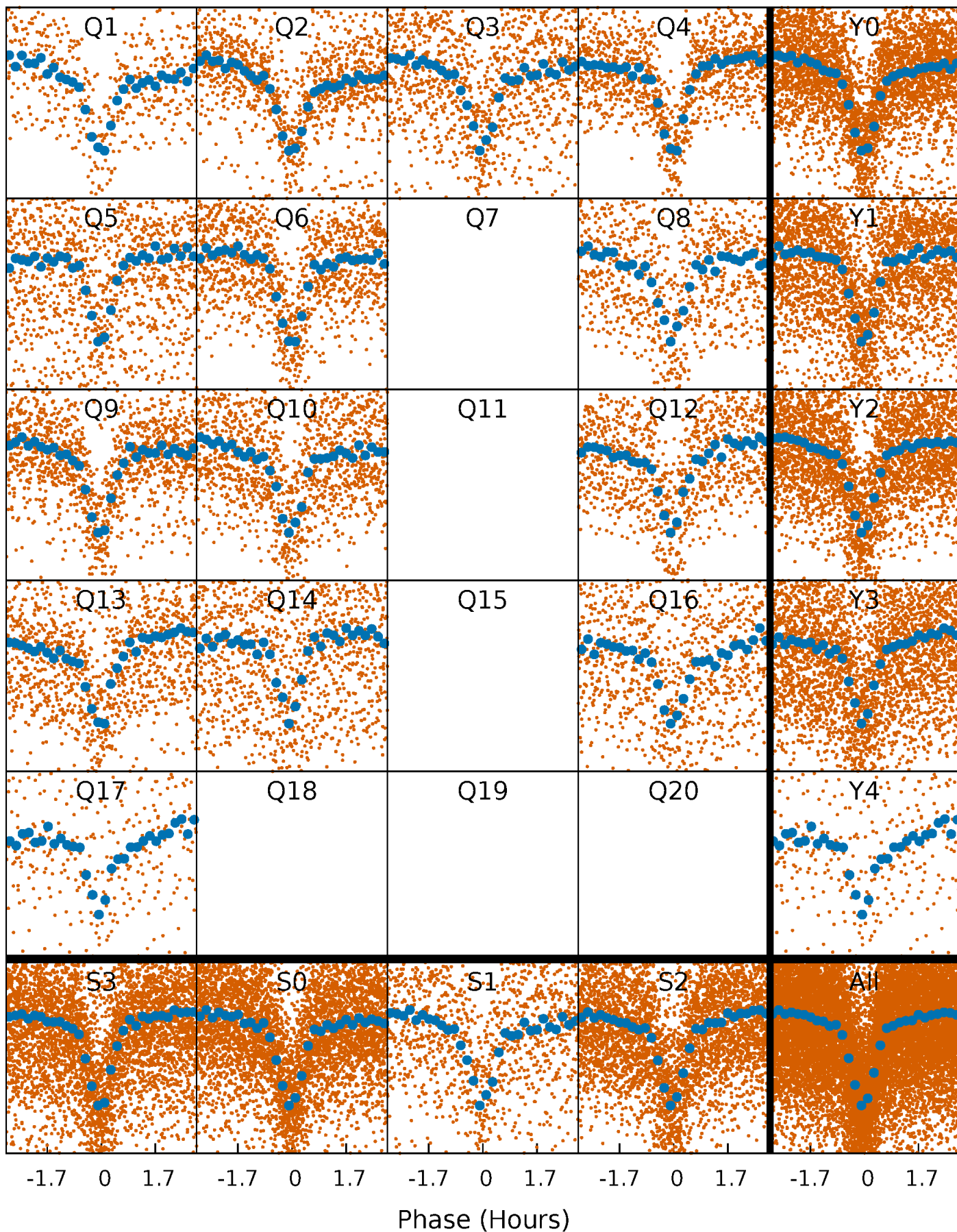


Non-Whitened Vs. Whitened Light Curve



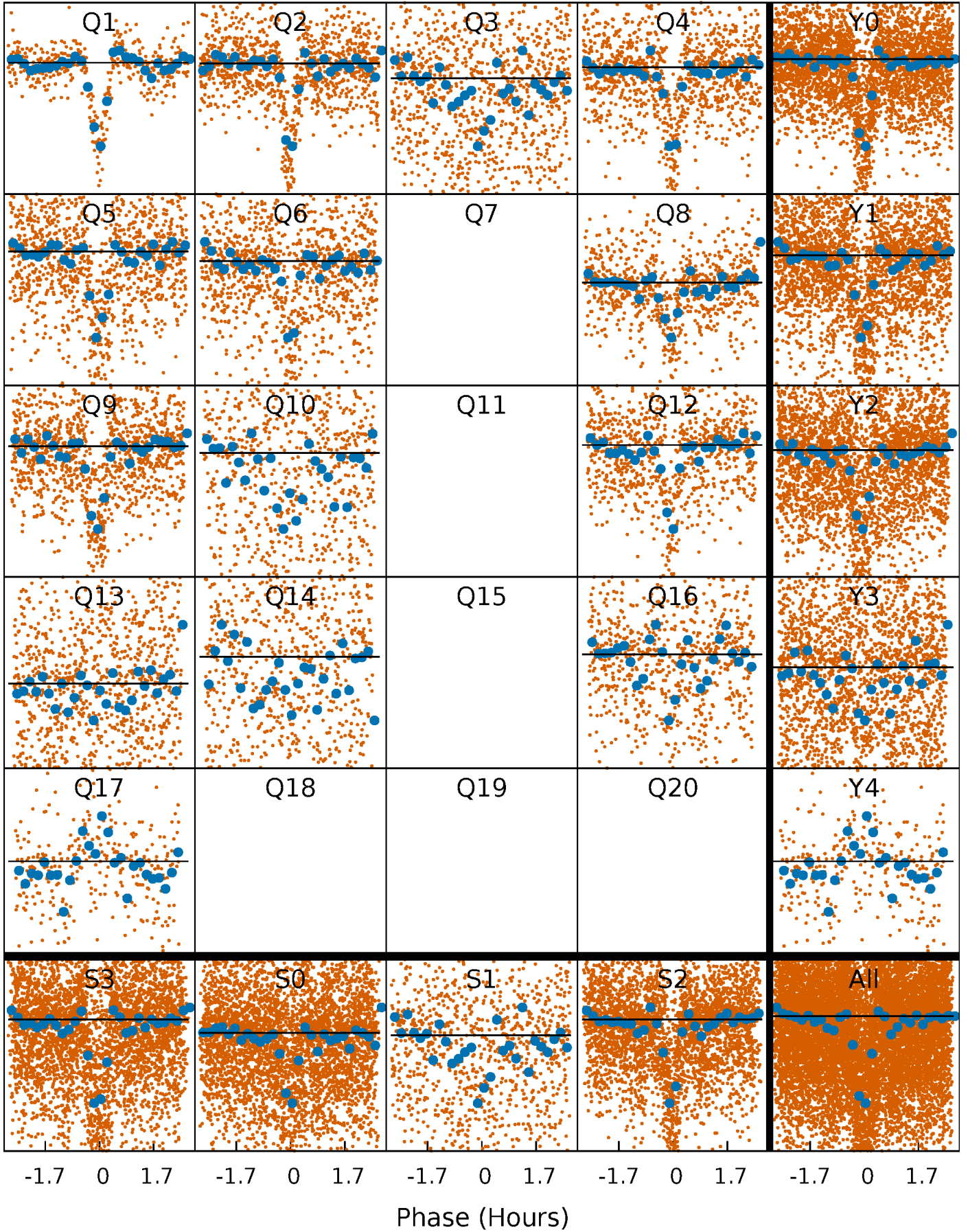
PDC Quarter-Phased Transit Curves

TCE 010620329-03 $P = 0.872566$ Days $T_0 = 132.092244$ (BKJD)



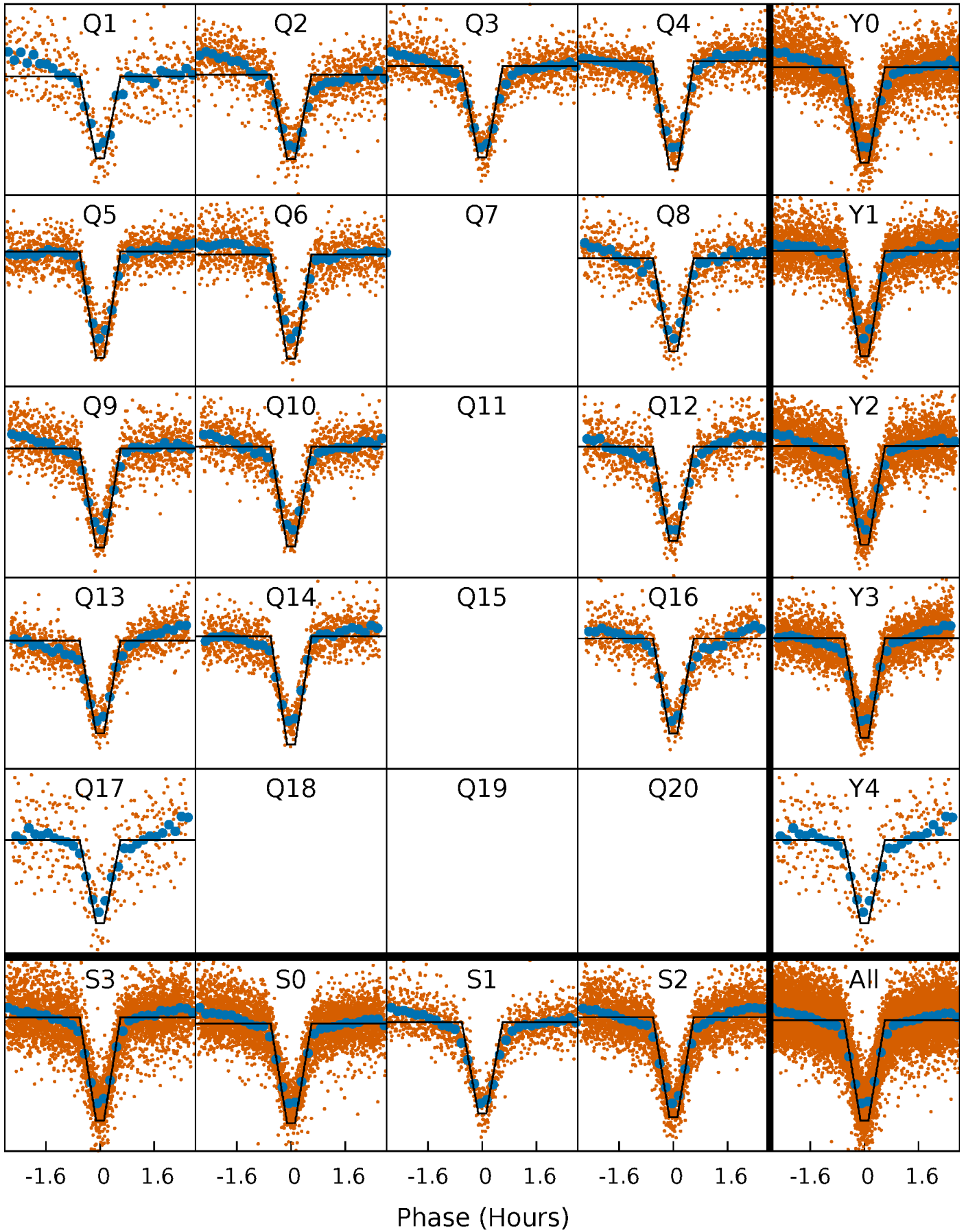
DV Quarter-Phased Transit Curves

TCE 010620329-03 $P = 0.872566$ Days $T_0 = 132.092244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

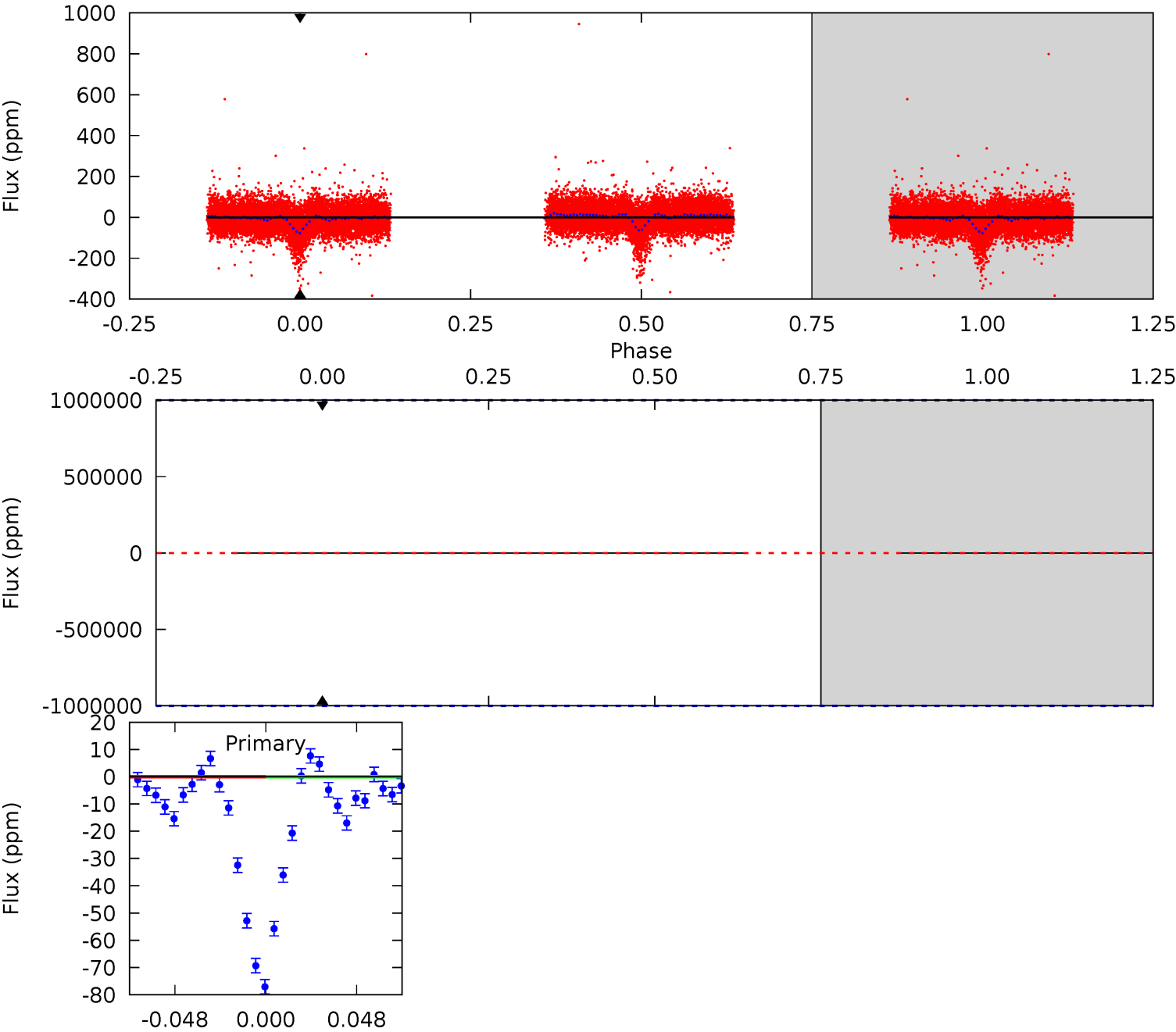
TCE 010620329-03 $P = 0.872566$ Days $T_0 = 132.090214$ (BKJD)



DV Model-Shift Uniqueness Test

010620329-03, P = 0.872566 Days, E = 131.219678 Days

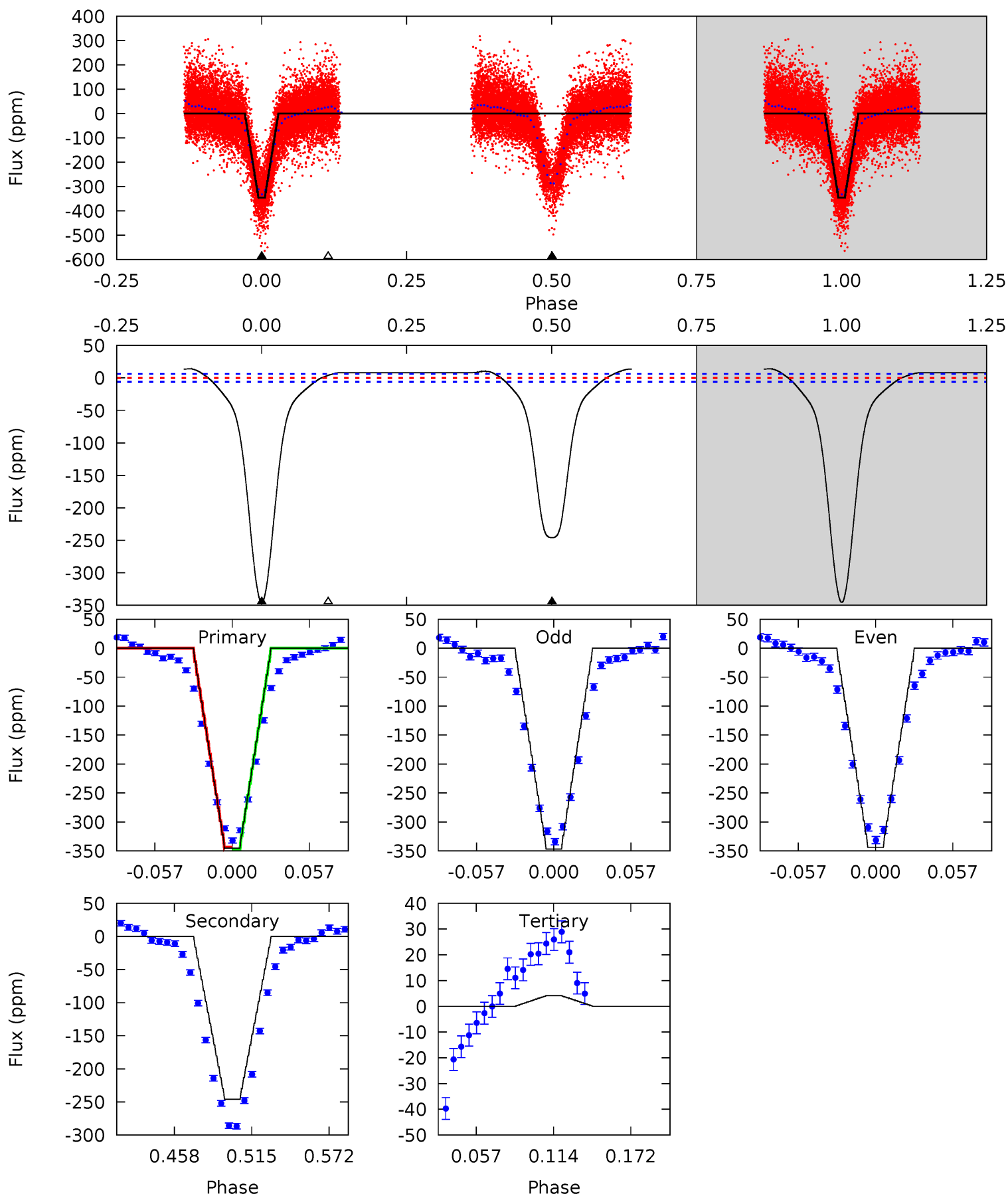
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010620329-03, P = 0.872566 Days, E = 131.217648 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
261.3	186.1	-3.11	0	4.68	1.90	10.1	264.4	261.3	189.2	186.1	1.10	1.01	0.04	1.22



Stellar Parameters For KIC 010620329

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8491^{+67}_{-93}	$3.853^{+0.232}_{-0.058}$	$-0.380^{+0.050}_{-0.150}$	$2.622^{+0.288}_{-0.672}$	$1.791^{+0.045}_{-0.153}$	$0.140^{+0.172}_{-0.033}$
	+1%/-1%	+6%/-2%	+13%/-39%	+11%/-26%	+3%/-9%	+123%/-23%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010620329-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$19.22^{+21.02}_{-13.85}$	5666^{+212}_{-354}	-3558^{+70036}_{-51917}	$0.222^{+148.933}_{-123.852}$
Alt.	-246 ± 1	$19.76^{+19.34}_{-13.09}$	5668^{+197}_{-365}	-3921^{+10049}_{-582}	$0.162^{+1.241}_{-0.120}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

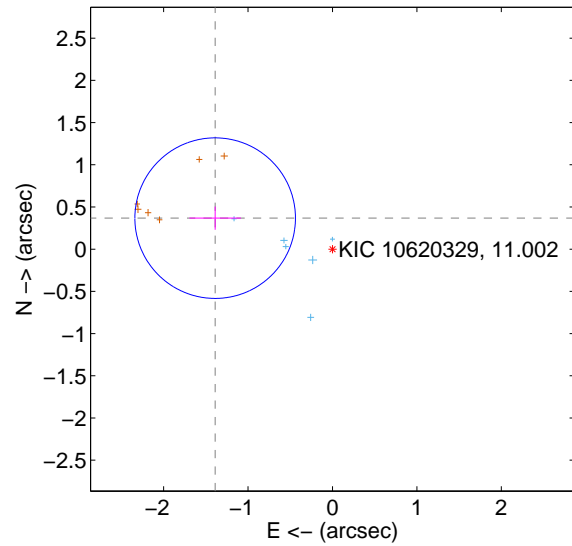
Supplemental centroid analysis for 010620329-03. **Kepler magnitude: 11.00.** Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

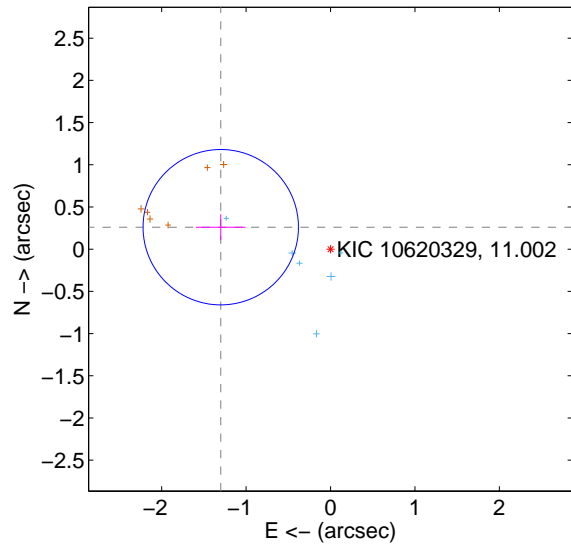
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.438 ± 0.317	4.53	1.390 ± 0.305	0.368 ± 0.138
PRF-fit source offset from KIC position	1.326 ± 0.307	4.32	1.300 ± 0.295	0.260 ± 0.153
photometric centroid source offset	0.21 ± 0.04	5.06	-0.01 ± 0.05	-0.21 ± 0.04

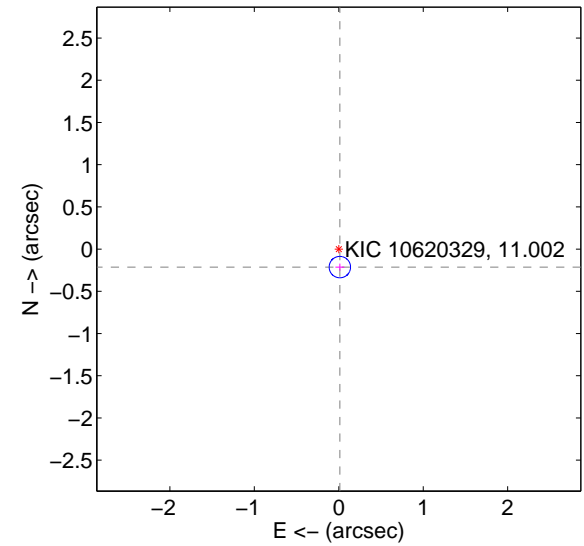
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

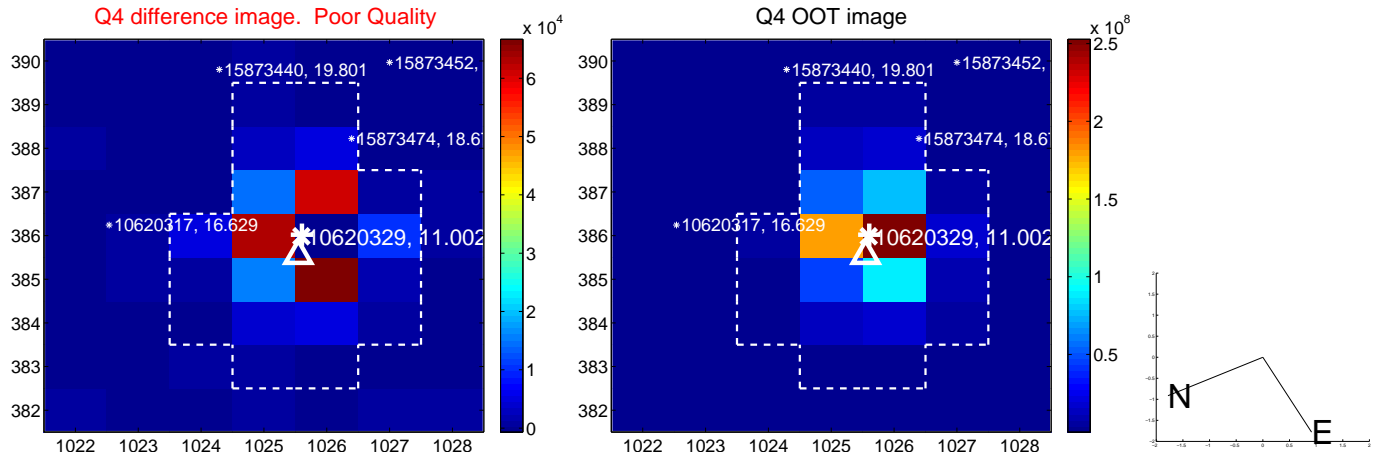
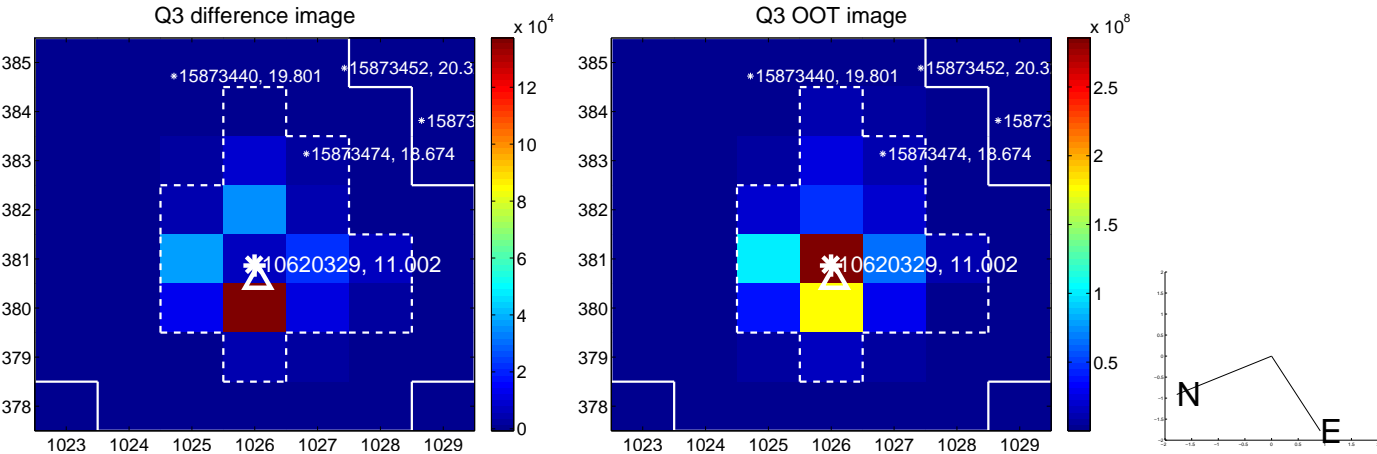
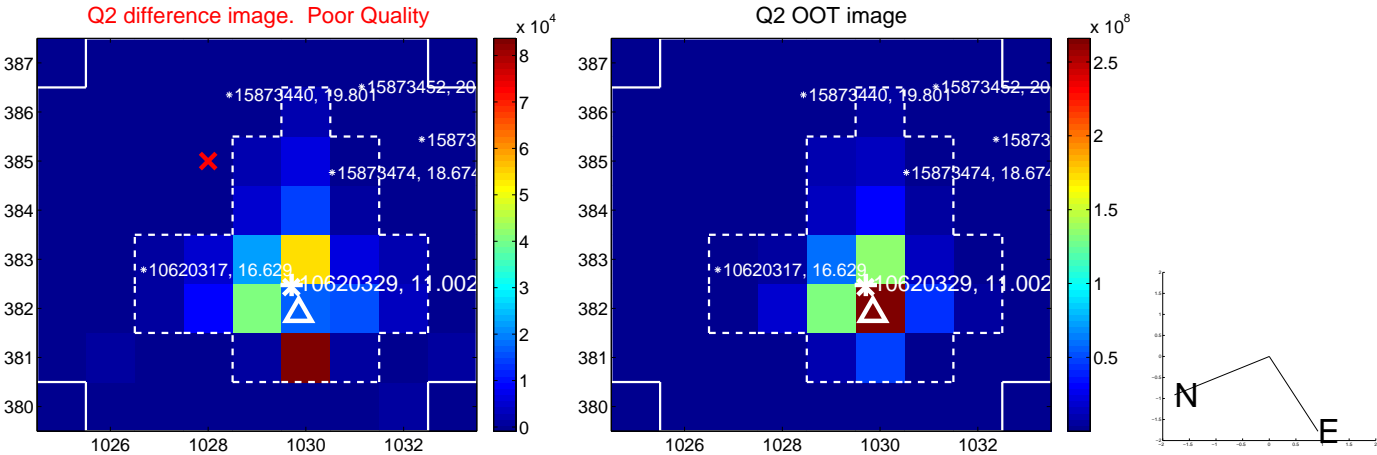
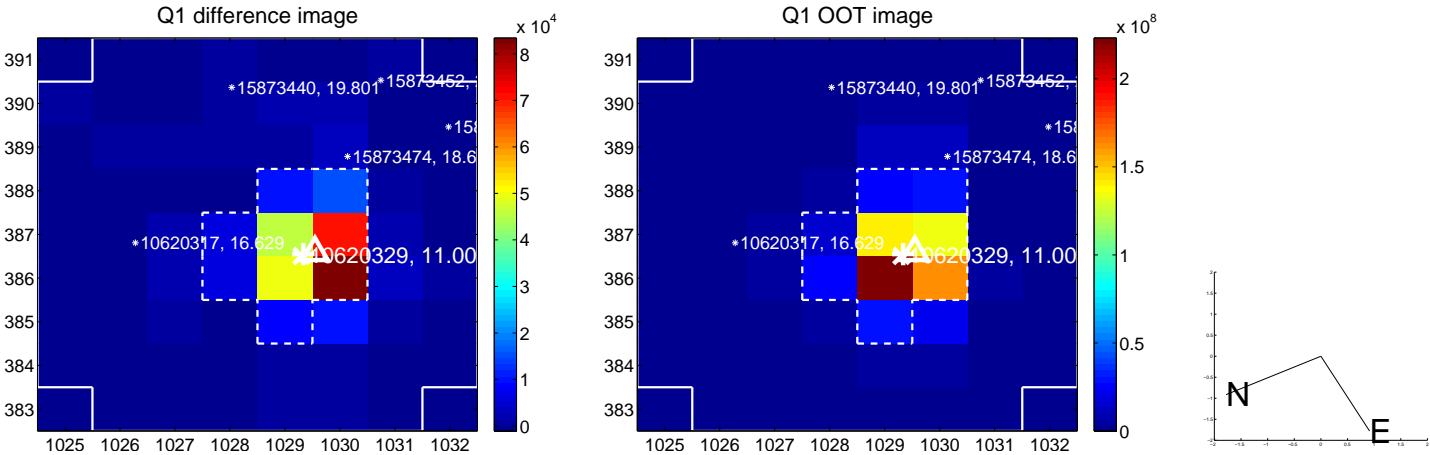


offset from photometric centroids

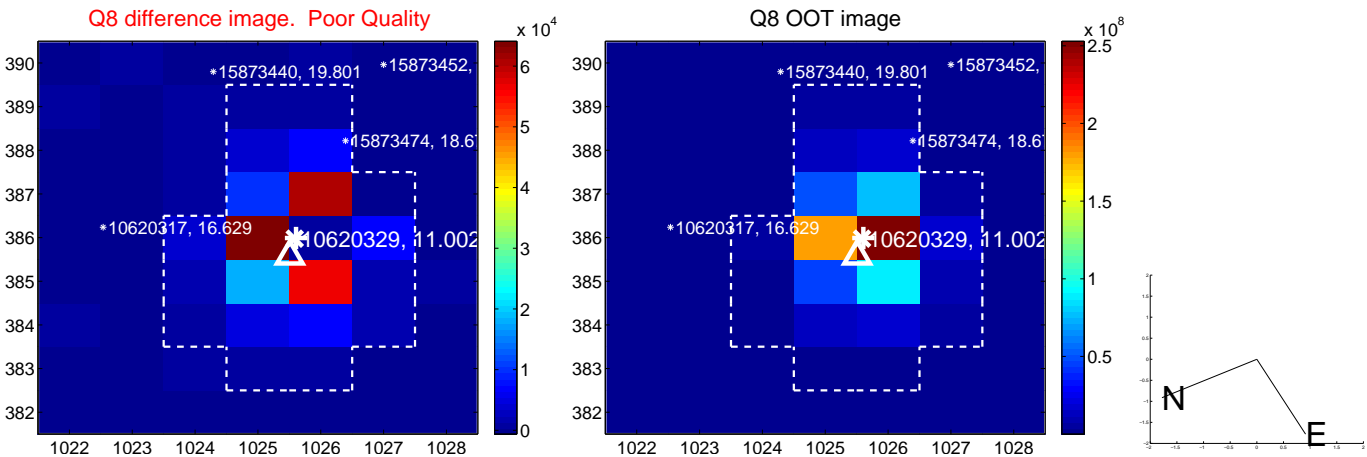
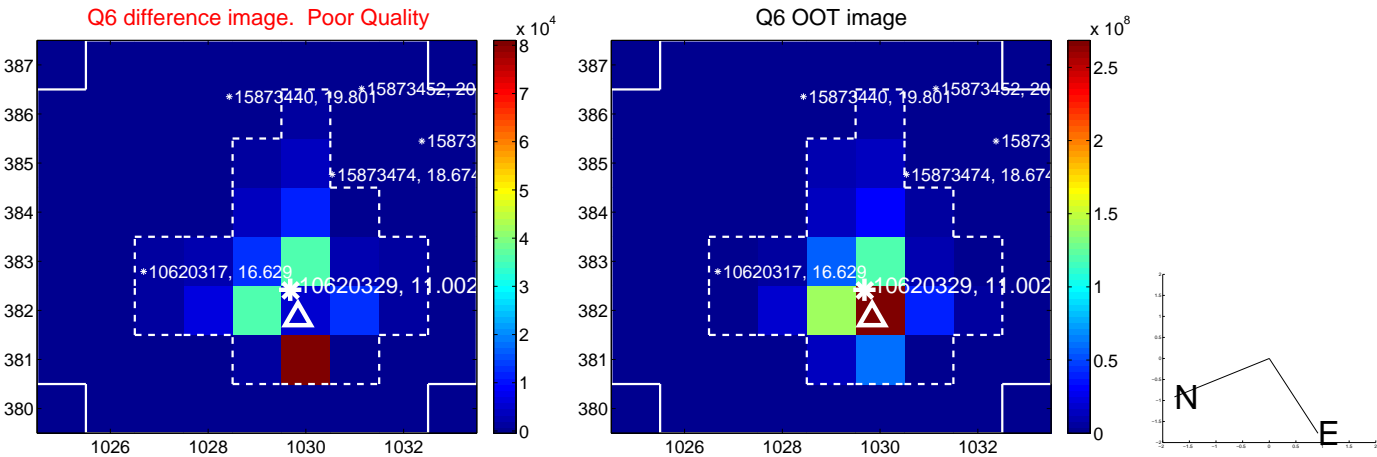
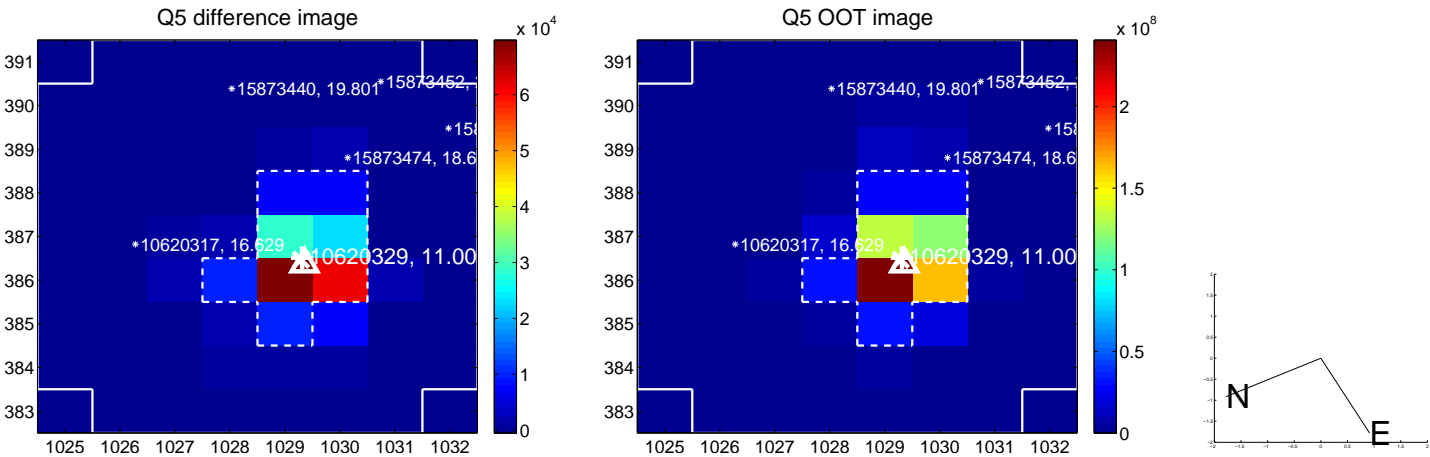


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

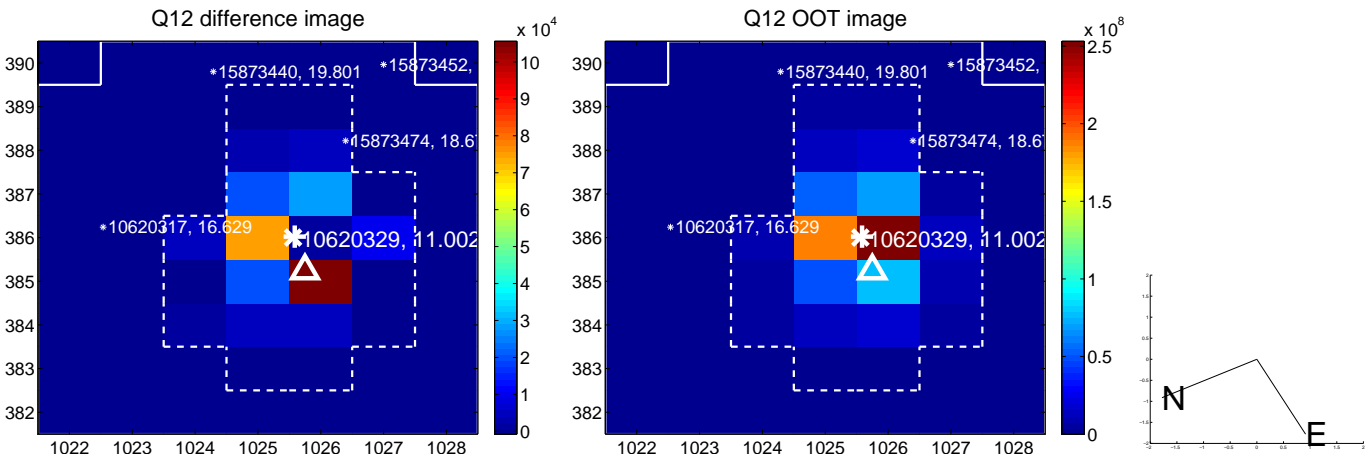
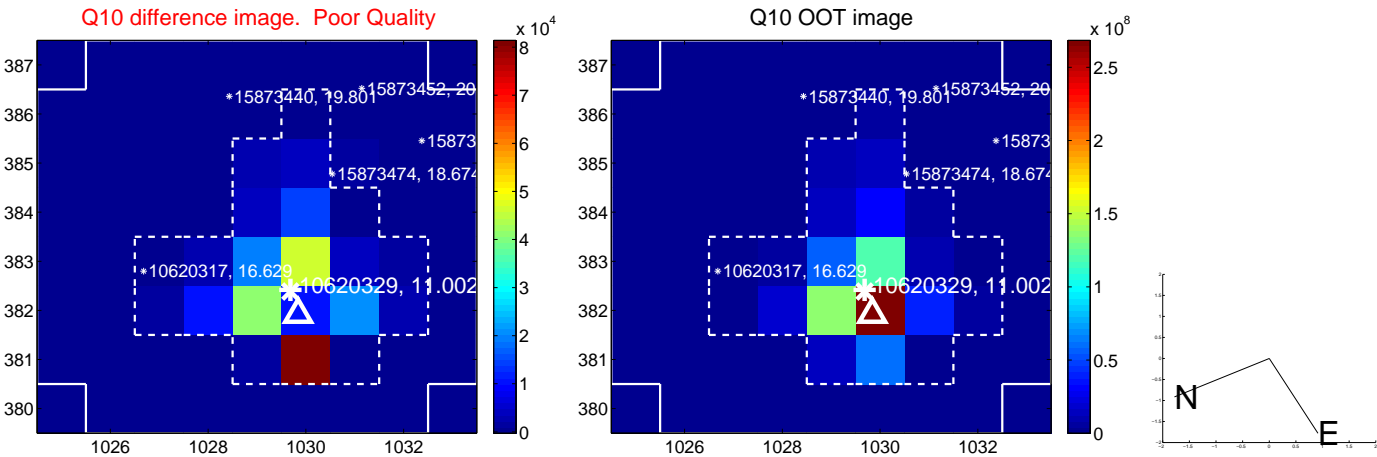
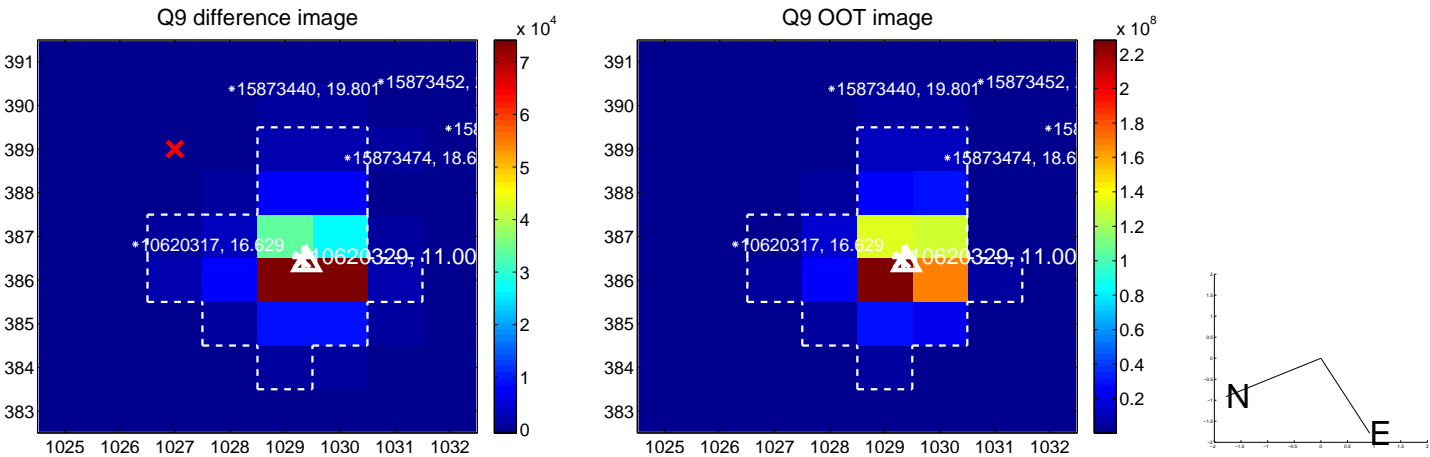
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



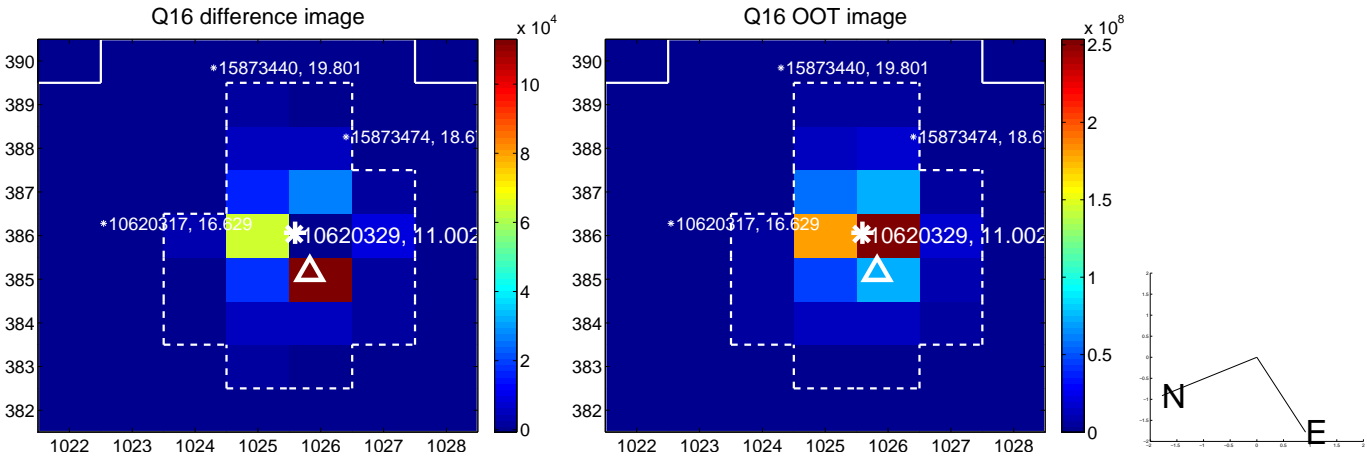
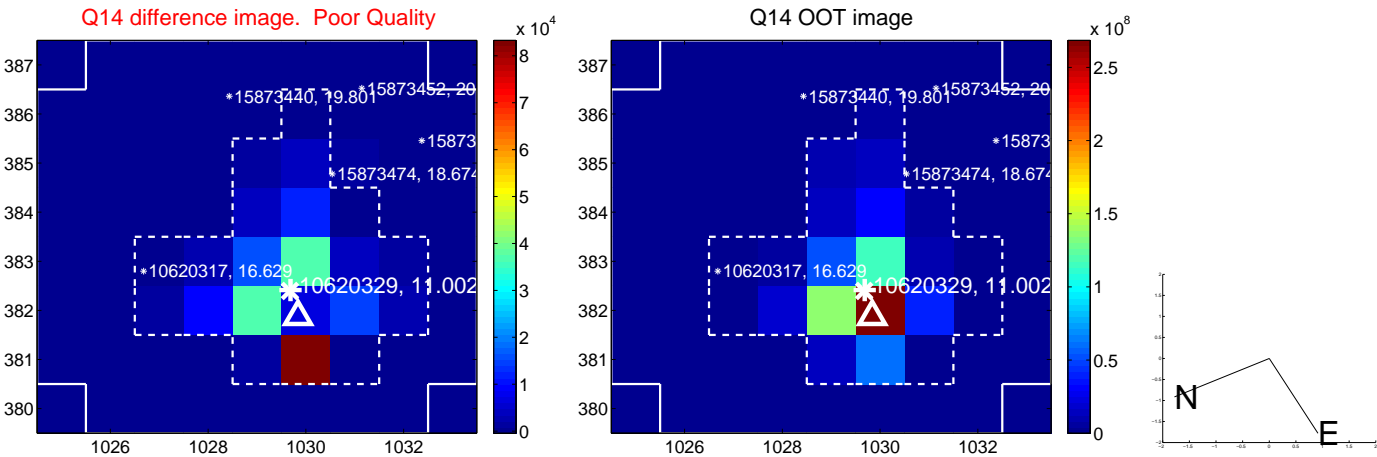
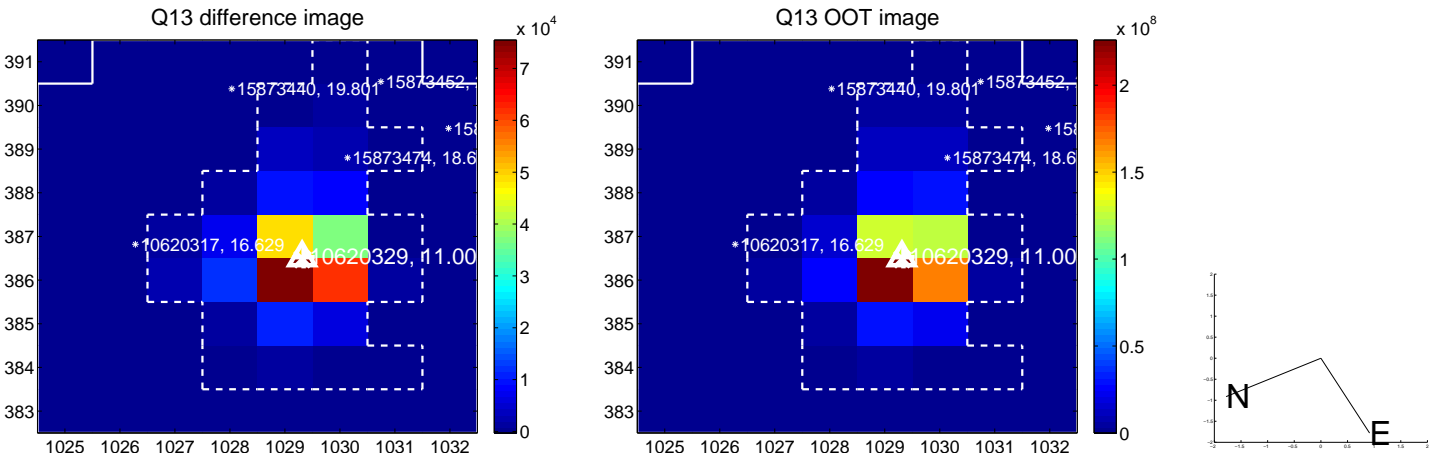
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



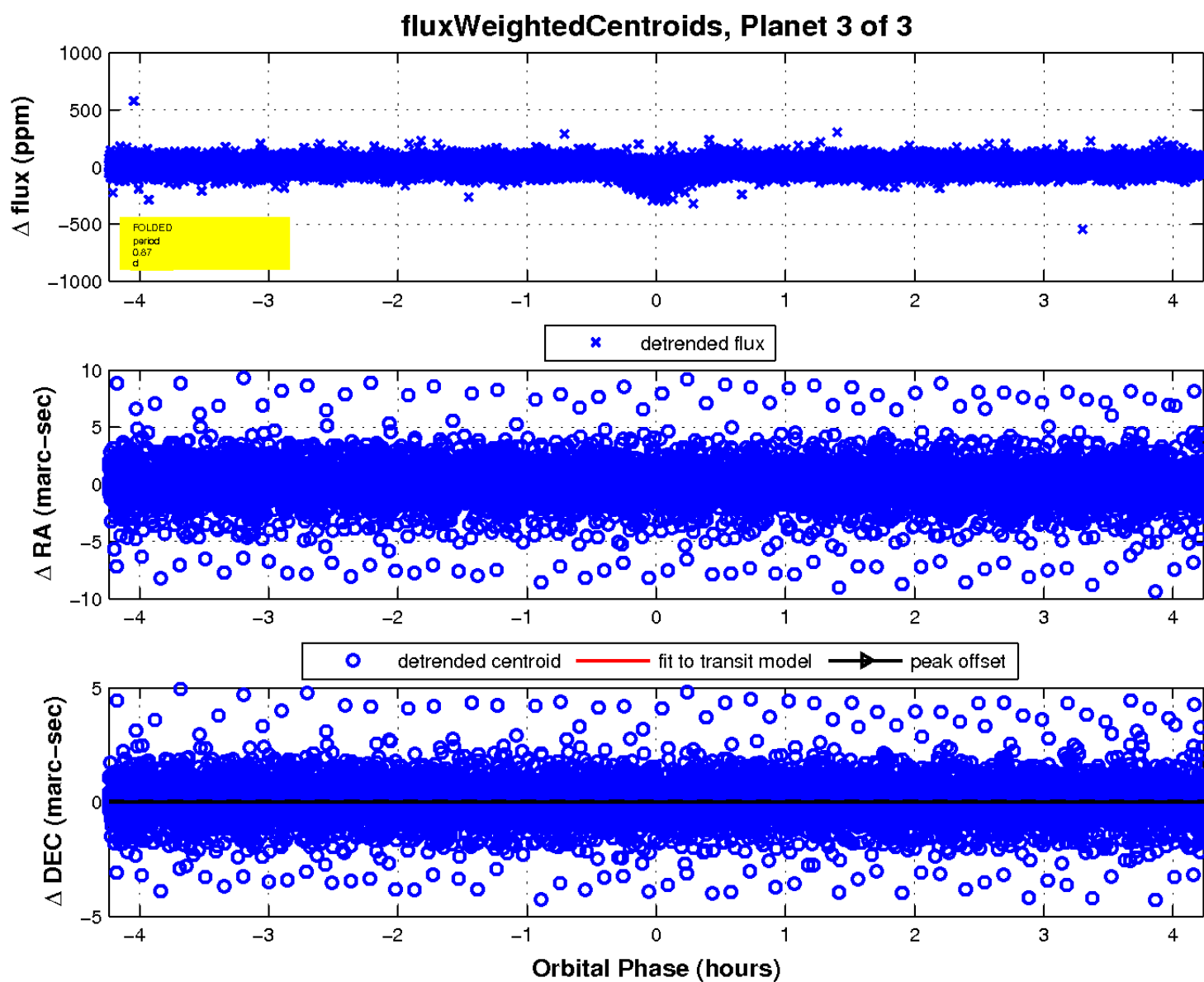
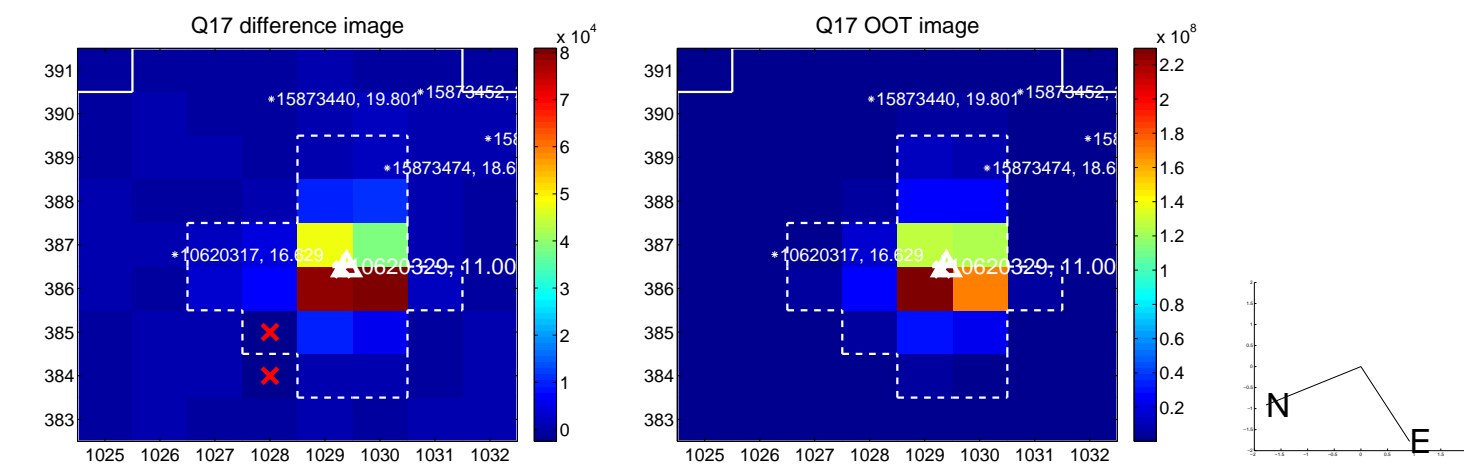
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

